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RESULTS OF AEROHEATING DFI AND ET DESIGN-DATA TEST ON A 0.0175-SCALE MODEL 60-OTS CONDUCTED IN THE VON KARMAN GAS DYNAMICS FACILITY (VKF) 40-INCH SUPERSONIC AND THE 50-INCH HYPERSONIC WIND TUNNELS A&C (IH-97A/B/C)

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by

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Prepared under NASA Contract Number NAS9-17179

by

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for

Systems Engineering Division

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Wind Tunnel Test Specifics:

Facility Test Number:

V-A-1X

V-C-2E .

NASA Series Number:

TH97A/B

IH97C

Model Number:

60-OTS

Test Dates:

October 18, 1982 through October 19, 1982

October 21, 1982 through October 22, 1982

Occupancy Hours:

32

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(IH-97A/B/C)

by

John Marroquin Rockwell International

ABSTRACT

The 0.0175-scale thin-skin thermocouple Model 60-OTS was tested in the USAF Arnold Engineering Development Center von Karman Gas Facility 40-inch continuous flow supersonic tunnel A from October 18, 1982 through October 19, 1982. Test IH-97/C was performed in the VKF Tunnel C during the time period of October 21 through 22, 1982.

Testing was conducted at Mach numbers 2.25 to 4.0, and Reynolds numbers from $0.4 \times 10^6/\text{ft}$ to $6.6 \times 10^6/\text{ft}$. Angle of attack range was from -5.0 to +5.0 degrees, and angle of sideslip range was from -6 to +6 degrees.

The primary objective of this test was to provide a valid base for the ET and SRB heating prediction methodology for ascent flight by taking heating data at Development Flight Instrumentation (DFI) locations for flight conditions simulating STS-1 through -4. A second objective was to obtain additional aeroheating data to support potential reduction of TPS on the ET. The third phase of the test was funded and conducted by NASA/MSFC for the purpose of establishing confidence in the data

ABSTRACT (Continued)

base from the lower temperature tunnel "A" by running comparable data in tunnel "C." The latter tunnel is regarded by AEDC to be their heat transfer facility.

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INTRODUCTION

Test IH97A/B/C was conducted at the Arnold Engineering
Development Center (AEDC), Air Force Systems Command (AFSC),
for NASA/Johnson Space Center, Houston, in the von Karman
Gas Dynamic Facility 40-inch continuous-flow supersonic
Tunnel A during the period of October 18 to 19, 1982, and in
the 50-inch continuous-flow with an axisymmetric contoured
nozzle and a special 25-inch diameter nozzle exit. The test
was performed in the VKF Aerothermal Tunnel C during the
October 21 to 22, 1982 time period. The 0.0175-scale thin-skin
thermocouple Model 60-OTS was used for this test.

The test was divided into three phases. The objective of the first phase (IH97A) was to obtain heating data in locations where developmental flight instrumentation (DFI) had been placed on the full scale external tank, solid rocket boosters, and associated hardware and support structure. Data were obtained over the Mach range 2.25 to 4.0 at freestream unit Reynolds numbers of 3.7 x 10⁶ to 5.7 x 10⁶ per foot. Nominal ascent pitch and yaw attitudes from STS-1 through -4 were duplicated during the course of the test. The objective of the second phase (IH97B) was to obtain data for assessment of ET and SRB thermal protection system design, including a proposed external TVC pod located on the SRB aft skirt. The model attitude was varied over the range of +5.3 to -6 degrees angle of attack and +6 to -6 degrees angle of sideslip.

INTRODUCTION (Continued)

Due to the low driving potential (TR-TW < 100°F) experienced in conducting heat transfer tests in Tunnel A, NASA has been concerned about the validity of the interference heating measurements (Hi/Hu) obtained on the External Tank in previous Tunnel A tests. With the advent of the M = 4 Aerothermal Tunnel addition to Tunnel C, came the capability to provide conditions similar to those run in Tunnel A, but at a much higher driving potential (TR-TW >800°F). In addition, conditions could be provided in the Aerothermal Tunnel to duplicate Space Shuttle flight Reynolds number.

Test objectives for phase three were to obtain interference heating data on the integrated vehicle at conditions comparable to previous tests run in Tunnel A, at similar and higher values of driving potential. Secondly, to obtain external tank interference heating data at conditions comparable to flight STS-4, the only one up to that time which staged beyond Mach 4. The configuration tested was the 0.0175 scale 60-OTS integrated Space Shuttle vehicle. Test conditions covered the range M = 4, Re/ft = 4 × 10⁶, TT = 270 - 980°F for the first objective. Model attitude was varied from -5 to +5 degrees angle of attack and -3 to +3 degrees angle of sideslip. For the second objective, the model was run at flight attitudes experienced on STS-4 and conditions of M = 4, Re/ft = 0.4 × 10⁶ and 6.6 × 10⁶. These data provide a base then, for assessment of the validity of the interference heating factors (Hi/Hu)

INTRODUCTION (Concluded)

obtained in Tunnel A, as well as a base for comparisons between Acrothermal Tunnel C, Tunnel A, and flight.

This report provides a description of the test consisting of remarks on the conduct of the test, descriptions of the model and the test facility, and details of the test procedure, test program, data reduction, and test anomalies.

NOMENCLATURÉ

DESCRIPTION SYMBOL Denote Constant Terms Used to Calculate R a1, a2, a3 Model Angle of Attack, Deg. ALPHA Tunnel Sector Angle, Deg ALPHA-SECTOR, b Model Wall Thickness, Ft Model Angle of Sideslip, Deg BETA Model Wall Specific Heat, Btu Ibm-OR Center of Rotation, Axis about which Model U.R. is pitched in the Tunnel Schmidt-Boelter Calibration Constant, c_1 mv/Btu/ft2sec Body Flap Deflection Angle, Deg DELTBF Elevon Deflection Angle, Deg DELTAE Speed Brake Deflection Angle, Deg DELTSB Derivative of the Model Wall Temperature with DTW/DT Respect to Time, OR/sec E Schmidt-Boelter Gage Output, mv Schmidt-Boelter Gage Identification Number GAGE NO Heat-Transfer Coefficient Based on TR, H(TR) Etu ft²-sec-OR Heat-Transfer Coefficient Based on TT, H(TT) QDOT. ft2-sec-OR Heat-Transfer Coefficient Based on 0.95 TT H(0.95TT) (0.95TT)-TW ft2-sec-OR Heat-Transfer Coefficient Based on RTT, H(RTT) QDOT, ft2-sec-OR

Hi/Hu Ratio of the local heat-transfer coefficient on the external tank (ET) in the interference flow field, i.e. with orbiter, SRB's divided by the local heat transfer coefficient for the tank alone, corresponding definition for heating on the SRB.

NOMENCLATURE (Continued)
DESCRIPTION
Reference Heat-Transfer Coefficient Based on Fay-Riddell Theory, Btu/ft 2 -sec- $^{\rm O}$ R
Axial Reference Length, In.
Mach Number at Boundary Layer Edge
Freestream Mach Number
Model Configuration
Freestream Viscosity, 1b-sec/ft2
Direction Cosines of the Outward Unit Normal Vector at each Measurement Location on the External Tank and SRB's
Orbiter, External Tank and Both Solid Rocket Boosters
Freestream Pressure, PSIA
Tunnel Stilling Chamber Pressure, PSIA
Freestream Dynamic Pressure, PSIA
Heat-Transfer Rate, Btu/ft2-sec
Data Set Identification Number
Recovery Factor
Radius or Analytical Temperature Ratio, TR/TT
Reference Nose Radius for HREF and STFR Calculations
Freestream Reynolds Number per Foot, ft-1
Freestream Density, lbm/ft ³
Tunnel Sector Angle of Roll, Deg

Theoretical Stagnation Point Stanton Number for a 0.0175-ft Radius Sphere

Solid Rocket Booster

Ratio of Test Value to Theory for ET or SRB alone; Hu test/Hu theory

SRB

STFR

TURFAC

NOMENCLATURE (Continued)

SYMBOL	DESCRIPTION
S.F.	Schmidt-Boelter Gage Scale Factor; the Reciprocal of C_1 , Btu/ft2-sec/mv
Т	Temperature, ^O R Freestream Static Temperature, ^O R
TC-NO	Thin-skin Thermocouple Identification Number
T'e	Temperature at the Edge of the Boundary Layer, $^{\circ}R$
THETA, 0	Model Circumferential Measurement Coordinate
TI	Model Initial Wall Temperature Prior to Injection in the Tunnel, OR
TR	Boundary Layer Recovery Temperature, OR
TT	Freestream Total Temperature, OR
TW	Model Wall Temperature, OR
v	Freestream Velocity, ft/sec
x	Model Axial Coordinate, In.
X/L	Nondimensionalized Axial Location
YAW	Model Angle of Yaw, Deg.
8	The Included Angle Between the Freestream Velocity Vector and Local Unit Normal to the Model Surface, Deg.
Υ	Ratio of Specific Heats
ρ	Model Wall Density, 1bm/ft ³
CONFIGURATION - OTS	+ Tr + TVC
*OTS	0.0175 Scale Orbiter, External Tank Right and Left Solid Rocket Boosters (SRB)
Tr	Transition Strips (SRB's and Orbiter)
TVC	Thrust Vector Control Pods on Left SRB

NOMENCLATURE (Concluded)

SYMBOL

S: 1

*OTS

DESCRIPTION

B - Fuselage

C - Canopy

M - OMS Pod

W - Wing 116

E - Elevon 52

V - Vertical Tail

R - Rudder

F - Body Flap

T - External Tank (Spike Hose)

S - Solid Rocket Booster

CONFIGURATION INVESTIGATED

The 60-OTS model is a 0.0175-scale thin skin thermocouple model of the Rockwell International vehicle 5 launch configuration, as shown in Figure 3. The 60-OTS configuration consists of the assembly of a payload carrying orbiter, an expendable external oxygen/hydrogen tank (ET) (which provides fuel for the orbiter main engines), and two recoverable solid rocket boosters (SRB's). The model configuration component buildup: OTS = B_{62} , C_{12} , M_{16} , W_{116} , E_{52} , V_8 , R_{18} , F_{10} , T_{38} , and S_{26} . The model was constructed of 17-4 PH stainless steel with a nominal skin thickness of 0.030 inch at all instrumented areas except the inter-tank area. A new instrumented 17-4 PH stainless steel corrugated inter-tank was constructed with approximately 166 stringers at various spacing, with an average skin thickness of 0.04 inch at each thermocouple location (see Figure 6d). In addition, the external tank was configured with the 30/10 degrees spike nose tip as shown in Figure 6d. For phase B of the test, instrumentation thrust vector control (TVC), figure 6f was added to the aft skirt of the left SRB. All control surfaces on the orbiter were set at zero degrees, except for elevon deflections (δ_{e}), which were run at 0 and +10 degrees.

Boundary layer trips were applied to both SRB's and to the orbiter nose to insure a turbulent boundary layer over each model element. The spiked nose of the ET effectively tripped

CONFIGURATION INVESTIGATED (Concluded)

its boundary layer so no artificial trip was necessary. The SRB trips consisted of 0.025-inch diameter balls spaced on 0.075-inch center around 1/8-inch form-fitted steel rings, while trips for the orbiter were attached to a steel strip. Axial locations of the trips on the SRB's were at X/L = 0.033 and X/L = 0.0398 for the orbiter (see Figures 6b and 6c).

TEST INSTRUMENTATION

Model 60-OTS was instrumented with 230 Chromel Constantan thin-skin thermocouples (30 gage wire) and 46 0.050-inch diameter thermopile Schmidt-Boelter heat transfer gages. Schmidt-Boelter gage instrumentation was placed in locations not instrumented on previous Space Shuttle tests, such as struts, cable trays and other support structure and protuberances, and particularly at flight test instrument locations. The external tank was instrumented with 169 thin-skin thermocouples and 28 Schmidt-Boelter gages. Instrumentation was composed of gages and thermocouples carrying the 600, 700, 2000 and 5000 series designation numbers. Instrumentation location is depicted in Figure 4a for the external tank and in Figures 4b through 4f for the support hardware, i.e., bipod strut, cable tray, thrust struts, etc.

The SRB's were instrumented as follows: the right SRB (Figure 5a) contained 30 thin-skin thermocouples and 6 Schmidt-Boelter gages. The left-hand SRB (Figure 5b) contained 32 thin-skin thermocouples and 12 Schmidt-Boelter gages, which included 5 Schmidt-Boelter gages installed on the TVC pods (Figure 5c). Right SRB instrumentation was composed of the 3000 series designation numbers while the 4000 series designation pertained to the left SRB. Instrumentation location on associated SRB hardware (support struts, kick rings, etc.) is illustrated in Figure 5d through 5i.

Instrumentation for Phase A consisted of 174 thin-skin thermocouples and 41 Schmidt-Boelter gages from the ET and SRB's, while

TEST INSTRUMENTATION (Continued)

Phase B instrumentation consisted of 164 thin-skin thermocouples and 46 Schmidt-Boelter gages. Instrumentation for Phase C for Tunnel C runs consisted of 188 thin-skin thermocouples and 34 Schmidt-Boelter gages from the ET and SRB's. Instrumentation locations for Phases A, B and C are given in Table IV.

The Schmidt-Boelter gages were developed by Medtherm Corporation of Huntsville, Alabama. The gage is a direct reading heat flux gage with a Chromel-Constantan thermocouple vapor deposited on the gage surface. The addition of the thermocouple to the gage allows measurement of surface temperature and heat flux simultaneously. The principle of operation of the gage is based on axial heat conduction from the gage surface to a heat sink embedded within the gage. The difference in temperature between two points along the path of heat flow from the surface to the sink is proportional to the heat transferred and, therefore, the heat flux absorbed. At two such points, the Medtherm gages have thermocouple junctions which 'rm a differential thermo-electric circuit providing a selfgenerating EMF between the two output leads directly proportional to the heat transfer rate. The gages were built in place and are, therefore, an integral part of the 60-OTS model. Schmidt-Boelter gage calibrations were performed by the Medtherm Corporation. The resulting calibration constants are presented in Table V.

TEST INSTRUMENTATION (Continued)

The following instrumentation problems were encountered during Test IH97A/B/C:

T/C's Omitted (Missing in Model 60-OTS) or Open

T/C No.	Xs	$\mathbf{x}_{\mathbf{T}}$	O DEG.
5253*		11.38	18
3225	6.02		30
5255		15.41	180
5256		17.03	180
5164		20.62	358
2077		25.103	36.32
724		25.103	27.7
708		25.103	29.8
725		28.33	37.7
5514		31.85	38
5532		32.73	38
5541		32.98	38
5174		33.53	358
5175		33.53	332
4022	6.79		60
5125		24.15	58.5
5045		26.06	172.5
2005		21.09	31.43

Problem Schmidt-Boelters

S/B No.	Location	Remarks
3068 3243 5057 5059 5062 5260**	Kick Ring R/H Stag. Pt. ET/ORB Fwd. Strut ET/ORB Thrust Strut Crossbeam LH ₂ Center of Ramp	Open Open T/C Open T/C Open T/C Open T/C Open Gage
4189 5241 5540	TVC POD LSRB LO2 Cable Tray Fairing ET Surface Fwd. of Blue Streak Ramp	T/C Questionable Hi Resistance N.G.

^{*} Thermocouple #5253 was incorrectly installed on the model. Instead of at Θ = 180°, it was located at Θ = 18°.

^{**} Schmidt-Boelter gage #5260 was incorrectly installed flush with the ET surface ahead of, instead of on, the "Blue Streak" ramp face.

TEST INSTRUMENTATION (Concluded)

The model data were acquired using a 256 channel analog-to-digital multiplying system. Model temperature data, as well as tunnel flow measurements, model attitude, and time were processed by the Random Access Data Acquisition System (RADS) PDP-11 Mini-computer and recorded on disc memory for transmission to the facility computer (DEC-10) for data reduction.

Three constant sets were given to this test. Constant set 100 was for IH97A, constant set 200 was for IH97B, and constant set 300 was for IH97C.

Thermocouple and Schmidt-Belter gage locations for this model are illustrated in Figures 4a through 5i. The dimension locations and skin thickness are listed in Table IV.

TEST FACILITY DESCRIPTION

The Arnold Engineering Development Center's von Karman Facility Tunnel A is a closed-circuit, continuous-flow, variable density wind tunnel equipped with model injection system which allows removal of the model from the test section while the tunnel remains in operation.

Tunnel A has a 40 x 40-inch test section with an automatically driven flexible-plate-type nozzle which provides Mach numbers from 1.5 to 6.0 (Reference Figure 2a, 2b, and 2c). The tunnel operates at maximum stagnation pressures ranging from 29 psia at Mach = 1.5 to 200 psia at Mach = 6.0. Minimum operating pressure range from about one-tenth to one-twentieth of the maximum at each Mach number. The stagnation temperature can be varied from an average minimum of about 540 to a maximum of 750°F, depending upon Mach number and pressure level. A complete description of the tunnel and air-flow calibration may be found in Reference 8.

The Mach 4 Aerothermal Tunnel C is a closed-circuit high temperature, supersonic free-jet wind tunnel with an axisymmetric contoured nozzle and a 25-inch diameter nozzle exit, Figure 2d and e. This tunnel utilizes parts of the Tunnel C circuit (the electric air heater, the Tunnel C test section, and injection system) and operates continuously over a range of pressures from nominally 15 psia at a minimum stagnation temperature of 710°R to 180 psia at a maximum temperature of 1570°R.

TEST FACILITY DESCRIPTION. (Concluded)

Using the normal Tunnel C Mach 10 circuit (Series Heater Circuit), the Aerothermal Mach 4 nozzle operates at a maximum pressure and temperature of 100 psia and 1900 R, respectively. The air temperatures and pressures are normally achieved by mixing high temperature air (up to 2250 R) from the primary flow discharged from the electric heater with the bypass air flow (at 1440 R) from the natural gas-fired heater. The primary and the bypass air flows discharge into a mixing chamber just upstream of the Aerothermal Tunnel stilling chamber. The entire Aerothermal nozzle insert (the mixing chamber, throat and nozzle sections) is water-cooled by integral, external water jackets. Since the test unit utilizes the Tunnel C model injection system, it allows for the removal of the model from the test section while the free-jet tunnel remains in operation.

TEST PROCEDURES

In the VKF continuous flow wind Tunnel A & C, the model is mounted on a sting support mechanism in an installation tank directly underneath the tunnel test section. The tank is separated from the tunnel by a pair of fairing doors and a safety door. When closed, the fairing doors, except for a slot for the pitch sector, cover the opening to the tank, and the safety door seals the tunnel from the tank area, allowing access to the model with the tunnel operating. After the model is prepared for the next data run, the personnel leave and the access door to the installation tank is closed, the tank is vented to the tunnel flow, the safety and fairing doors are opened, the model is injected into the airstream, and the fairing doors closed. After the data are obtained, the fairing doors are opened and the model is retracted into the tank. The sequence can now be repeated with the tank being vented to atmosphere, if necessary, to allow access to the model in preparation for the next run.

With the model retracted, a typical run sequence for this test began by cooling the model uniformly with the new cooling stand system to approximately 35°F with cooled high pressure air. This was accomplished by positioning the model in the Tunnel A cooling manifold and bathing the model in chilled high pressure cool air supplied from a vortex tube. The cooling manifold, which is normally located to the side of the model, was modified

TEST PROCEDURES (Continued)

such that it was supported off the tank floor. This modification allowed the model attitude to be set while model was being cooled. Once the cooling cycle was complete, the desired model attitude was established in the tank prior to indection. When the desired tunnel freestream conditions were established, the model was injected into the tunnel. As the injector system began to move, termed lift-off, the initial temperature, TW, for each thermocouple on the selected constant set was recorded. Prior to the model reaching the airstream, the data acquisition sequence was started. The model continued to move upward until reaching centerline, where it then translated forward to clear an area of tunnel induced shock impingements. Data acquisition continued until the model reached the full forward position, about seven seconds later, or approximately 13 seconds after lift off. The model was then retracted directly from the tunnel. During data acquisition, thermocouple outputs were scanned approximately 15 times per second. After each injection, the cooling cycle was repeated to return the model to an isothermal state. Tunnel A model cooling apparatus is shown in Figure 6g.

In the VKF continuous flow wind tunnel "C", the initial step prior to recording the test data was to cool the model uniformly to approximately 35°F. This was accomplished by positioning the model in the Tunnel C cooling manifold and bathing the model in chilled high pressure air. The model was then

TEST PROCEDURES (Concluded)

flow. Instrumentation outputs were scanned approximately 17 times per second starting upon injection and continued to approximately 1.5 seconds after the model reached tunnel centerline. The model was then retracted into the tank area below the tunnel and the cooling cycle began to cool the model to an isothermal state. A photograph of the model in the cooling rig is shown in Figure 6i.

TEST PROGRAM

The test was accomplished in four running shifts and four model installation shifts. A combined total of 106 valid runs was completed in approximately 32 occupancy hours and 24 hours of total test running time. These tests were conducted in Occober 18 through October 22, 1982. A summary of configurations tested and test conditions for each run is given in the enclosed run schedule, see Tables I: II and III.

Approximately 95 percent of the test objectives were successfully completed at AEDC VKF on October 22, 1982. The new heat-flux gages (modified Schmidt-Boelter type), specially fabricated for Rockwell by Medtherm Corporation, yielded good heating rate coefficient data. In the past, these types of gages only provided heat-flux in BTU's, and were considerably larger. The newer gages allowed data to be obtained from the 0.0175-scale 60-OTS model in locations that previously could not be instrumented to measure heat transfer-rate coefficients. The new modified cooling system in Tunnel A proved to be very effective during this test. The integrated vehicle was cooled to = +35 degrees prior to injecting model into the airstream. A schedule of completed runs given in Tables II and III is the data set/run number collation summary for this test.

DATA REDUCTION

Measured stilling chamber pressure and temperature and the calibrated test section Mach number are used to compute the freestream parameters.

The reduction of this skin temperature data to coefficient form normally involves only the calorimeter heat balance for the thin skin as follows:

QDOT =
$$\rho$$
bc (DTW/DT) (1)

$$H(TR) = \frac{QDOT}{TR-TW} = \frac{\rho bc (DTW/DT)}{TR-TW}$$
 (2)

Thermal radiation and heat conduction effects on the thin-skin element are neglected in the above relationship and the skin temperature response is assumed to be due to convective heating only. It can be shown that for constant TR, the following relationship is true:

$$\frac{d}{dt} \ln \left[\frac{TR - TI}{TR - TW} \right] - \frac{DTW/DT}{TR - TW}$$
 (3)

Substituting Eq. (3) in Eq. (2) and rearranging terms yields:

$$\frac{H(TR)}{\rho bc} = \frac{d}{dt} \ln \left[\frac{TR - TI}{TR - TW} \right]$$
 (4)

By assuming that the value of $H(TR)/\rho bc$ is a constant, it can be seen that the derivative (or slope) must also be constant. Hence, the term $\ln \frac{TR-TI}{TR-TW}$

is linear with time. This linearity assumes the validity of Eq. (2) which applies for convective heating only. The evaluation of conduction effects will be discussed later.

The assumption that H(TR) and c are constant is reasonable for this test although small variations do occur in these parameters. The variations of H(TR) caused by changing wall temperature and by transition movement with wall temperature are trivial for the small wall temperature changes that occur during data reduction. The value of the model material specific heat, c, was computed by the relation

c = $0.0797 + (5.556 \times 10^{-5})$ TW, (17-4 PH stainless steel) (5) The maximum variation of c over the curve fit was less than 1.5 percent. Thus, the assumption of constant c used to derive Equation 4 was reasonable. The value of density used for the 17-4 PH stainless steel skin was $\rho = 490$ lbm/ft³, and the skin thickness, b, for each thermocouple is listed in Table 4 for Phase A, B and C.

The right side of Equation 4 was evaluated using a linear least squares curve fit of 15 consecutive data points to determine the slope. The curve fit was started at approximately the time the model arrived on tunnel centerline. Data acquisition and curve fitting were continued for about 5 seconds after centerline, i.e., until the model reached the full forward position in the tunnel. H(TR) was then calculated for each thermocouple from the resulting slopes and the appropriate values of pbc:

$$H(TR) = (\rho bc) \frac{d}{dt} \ln \frac{TR - TI}{TR - TW}$$
 (6)

Reduction of the final data; i.e., the values listed in the AEDC facility tabulated data, was delayed in time until all

thermocouples influenced by the tunnel induced shock had been translated forward out of this region of tunnel flow. For the External Tank, data from those thermocouples between $0 \le X/L \le 0.2$ was reduced when the model reached centerline and those thermocouples between $0.2 \le X/L \le 1.00$ were delayed approximately 2.5 seconds after model arrival on tunnel centerline. For the SRBs, data reduction of thermocouples located between $0 \le X/L \le 0.113$ was started at centerline and delayed approximately 2.5 seconds for thermocouples located between $0.113 \le X/L \le 1.00$.

To investigate conduction effects, a second value of H(TR) was calculated one second later than the value under consideration for final tabulated data. A comparison of these two values was used to identify those thermocouples that were significantly influenced by conduction or system noise. In addition, timewise variation of H(TR) was monitored to insure that the final data were reduced during a time period where H(TR) was constant. Those measurements significantly affected were then deleted from the final data. In general, conduction and/or noise effects were found to be negligible.

Schmidt-Boelter Measurement

Measurements obtained from the Schmidt-Boelter gages; i.e., gage output, E, and surface thermocouple output, were used to calculate the incident heat flux (QDOT), wall temperature (TW) and heat transfer coefficient in the following manner. The gage output and surface thermocouple were sampled five con-

secutive times and then averaged. This procedure began when the model was at approximately tunnel certerline and continued until translation to the full forward position in the tunnel was achieved (about 5 seconds, i.e., the same fashion as the thin skin thermocouple data). The average values of the gage output E were then related to the incident heat flux (QDOT) through the gage scale factor.

$$QDOT = (S.F.) (E)$$
 (7)

The scale factor is equal to the reciprocal of the gage calibration constants (C_1) listed in Table V.

$$S.F. = 1/C_1 \tag{8}$$

Using the same averaging procedure an average value of gage surface thermocouple output was obtained. The average values were then related to the wall temperature (TW) through the use of a fifth degree polynomial curve fit of the NBS (National Bureau of Standards) tables for a chromel-constantan thermocouple. The heat transfer coefficient for each average value was calculated from the following equation:

$$H(TR) = \frac{QDOT}{(TR-TW)}$$
 (9)

Final data reduction, i.e., those data listed in the final AEDC facility data package, was delayed in time for the Schmidt-Boelter gages in the same fashion as used for the thin skin thermocouple data. Again this was done to insure that those gages which might be influenced by the tunnel induced shock were out of this region of tunnel flow. Timewise variation

of H(TR) versus time for the various Schmidt-Boelter.

gages was monitored to insure that the final data were
reduced during a time period where H(TR) was constant.

For cases where either the gage output or surface thermocouple was faulty, that particular measurement was deleted
and likewise the calculation of heat transfer coefficient.

The remaining valid measurement was then tabulated.

Data Reduction for Malfunctioning Gages

Frequently there were occurrences where Schmidt-Boelter data could not be reduced by standard methods because of failure of one of the two elements of each gage. An effort was therefore undertaken to devise a procedure which could recover the desired data, regardless of which of the two elements had failed.

Rationale behind the technique was to correlate parameters based on measurements from the surviving component against those from healthy gages located close to the oiling gage. This comparison was tracked for all runs, from beginning of the Phase A test to the end of Phase C.

The logic of the scheme is explained as follows. From the basic convective heat transfer equation

$$q = h (RT_T - T_W)$$
 (1)

 ${\bf q}$ and ${\bf T}_{{\bf W}}$ are the two measurements made by the Schmidt-Boelter gage, ${\bf T}_{{\bf T}}$ is the tunnel total temperature, R is the analytical temperature ratio described in the next section, and h is normally the only unknown.

$\mathbf{T}_{\mathbf{W}}$ Measurement Missing

For the case where the temperature component (T_W) malfunctions, consider from Eq (1) that the parameter h/\dot{q} is a function of, but does not contain T_W . To compare gages, the parameter h/\dot{q} can be evaluated for each run for gages with two working elements. If this quantity is divided by the value for a reference run, the result is a dimensionless ratio (Ratio One) as follows:

$$\frac{\left(\begin{array}{c} \frac{h}{\dot{q}}\right) \text{Run X}}{\left(\begin{array}{c} \frac{h}{\dot{q}}\right) \text{Ref}} \quad \text{or using quantities} \\ \text{available from test} \end{array} \quad \frac{\left(\begin{array}{c} \frac{h}{\dot{q}}\right) \text{Run X}}{\dot{q}} \\ \text{data} \end{array}$$

It can be shown that this ratio (or variations of it) has practically the same value for gages or thermocouples located close to each other. Therefore, the ratio for a nearby working gage is presumed to represent that for a malfunctioning gage. If there is a single good reference run-in which both \dot{q} and T_W are working, the terms in the denominator of the ratio are known, and h/href can be recovered for any other run in which \dot{q} is available.

In an attempt to improve the correlation ratio for conditions where tunnel density and temperature varied widely, a compensation factor, (P/ $_{\rm T_{\infty}}$) x (T $_{\rm T}$ -460), was introduced.

An example of the variation of this ratio with run number for a close grouping of gages is shown in Figures 7a and 7b.

q Measurement Missing

For the case where the heat flux component malfunctions, it can be seen from Eq. (1) that a parameter which excludes \dot{q} but is proportional to \dot{q} is h (RT_T-T_W). As in the previous case, this parameter can be evaluated for Schmidt-Boelter gages at any run where both gage elements are working. It can also be evaluated for thermocouples. The corresponding dimensionless ration (Ratio Two) is:

Again, the process is viable if all quantities are known at a single run. h/href can be recovered from any other run, then, where $\mathbf{T}_{\mathbf{W}}$ is available.

The compensation factor applied to ratio two is

$$(P/P_T)_{\infty} \div (T_T-460).$$

An example of the variation of this ratio with run number is shown in Figures 7a and 7b.

Because the missing data recovered by the procedures of this section are not available in published form elsewhere, the entire set of heating data from the Schmidt-Boelter gages is included in Table VI.

Recovery Temperature and R Factor

The tunnel stagnation temperature for each Mach number tested is listed in Table I. With the relatively low stagnation temperatures of tunnel A, the difference between the model wall temperature and recovery temperature was generally small, even in regions of peak heating. This small temperature difference caused the calculation of the heat-transfer coefficient to be very sensitive to deviations from the actual recovery temperature. Since the actual value of the recovery temperature (TR) at each measurement location is not known, three assumed values of TR are used to calculate the local heat transfer coefficients. They are TR = TT, 0.95 TT, and RTT where R is defined by the analytic temperature ratio $\frac{TR}{TT}$. The analytic method for determining R was developed by Dr. Serge-Albert Waiter of Rockwell International (Reference 7). In this method the following relationships were assumed:

$$R = \frac{TR}{TT} \tag{10}$$

PATA REDUCTION (Continued)

and

$$TR = T_{O} \left(1 + \frac{\gamma - 1}{2} r M_{O}^{2}\right)$$

$$r = 0.898 \text{ for turbulent flow}$$
(11)

with r being the recovery factor and the subscript e identifying local properties at the boundary-layer edge. From these relationships, the temperature ratio can be defined as:

$$R = \frac{1 + 0.2 r_{M_e}^2}{1 + 0.2 M^2}$$
 (12)

which is a function of the recovery factor and the local Mach number. The local Mach number can be written

$$M_e = M_e \quad (M, \delta) \tag{13}$$

where δ is the local surface angle of attack.

The local Mach number can be approximated by using tangent cone flow theory, and was used in Equation (12) to give R as a function of M and δ . Calculations of R were made for several values of M and δ , and the results were curve fit by Rockwell International. The following equation resulted

$$R(M, \delta) = a_1 + a_2 (\sin \delta)^{a_3}$$
 (14)

where a_1 a_2 and a_3 are constants for a particular Mach number. Turbulent values of a_1 a_2 and a_3 for this test were provided by Rockwell International and are as follows:

M	a,	a,	a
2.25	0.950	1.0-a,	2.322
2.50	0.944	1 1	2.275
2.75	0.938	į į	2.222
3.00	0.934	ľ	2.165
3.25	0.930		2.115
3.50	0.927		2.070
3.75	0.925		2.015
4.00	0.922	V	1.965

DATA REDUCTION (Continued)

The angle δ is the included angle between the freestream velocity vector and the local normal to the model surface.

& was computed using the following equation

 $S = \sin^{-1} \left\{ N_x \cos \alpha_s - N_y \sin \alpha_s \sin \phi + N_z \sin \alpha_s \cos \phi \right\} (-1) \right\}$ where N_x , N_y and N_z are the direction cosines for the local unit normal. Values of N_x , N_y and N_z for each thin skin thermocouple and Schmidt-Boelter gage is tabulated in the AEDC test report, Reference 2.

For values of $\delta \leq 0$ R = a_1

For R values > $1.0 R \equiv 1.00$

Values of heat transfer coefficient H(TT), H(0.95TT) and H(RTT) were normalized using the Fay-Riddell stagnation point heat transfer coefficient H(REF). The calculation of H(REF) was based on a hemispherical nose radius of 0.0175 ft. model scale (1.0 ft. full scale). Definition of the calculation of H(REF) is given below.

Reference Heat Transfer Coefficient, H (Ref)

In presenting heat-transfer coefficient results, it is con-

venient to use reference coefficients to normalize the data.*
Equilibrium stagnation point values derived from the work of

Fay and Riddell were used to normalize the data obtained in

this test. These reference coefficients are given by:

 $H(REF) = \frac{8.17173(PT2)^{1/2}(MUTT)^{0.4}(1-\frac{P}{PT2})^{0.25}}{(RN)^{1/2}(TT)^{0.15}}$

and

H(REF)

STFR = $(RHO)(V)[0.2235 + (1.35 \times 10^{-5})(TT + 560)]$

where

PT2

Stagnation pressure downstream of a normal shock wave, psia

DATA REDUCTION (Continued)

MUTT	Air viscosity based on TT, 1b, sec/ft2
Þ	Freestream pressure, psia
TT	Tunnel stilling chamber temperature, OR
RN	Reference nose radius, (0.0175 ft)
RHO	Freestream density, 1bm/ft ³
v	Freestream velocity, ft/sec

^{*} It should be noted, however, that the normalized data are not dimensionless.

Uncertainty of Measurement

In general, instrumentation calibrations and data uncertainty estimates were made using methods recognized by the National Bureau of Standards (NBS). Measurement uncertainty is a combination of bias and precision errors defined as:

$$U = \pm (B + t_{95}S)$$

where B is the bias limit, S is the sample standard deviation and tg5 is the 95th percentile point for the two-tailed Student's "t" distribution (95-percent confidence interval), which for sample sizes greater than 30 is taken equal to 2.

Estimates of the measured data uncertainties for this test are given in Table 2a, References 2 and 4. The data uncertainties for the measurements are determined from in-place calibrations through the data recording system and data reduction program.

Propagation of the bias and precision errors of measured data through the calculated data was made in accordance with Reference 7 and the results are given in Table 2b in References 2 and 4.

DATA ANALYSIS

Representative data from the top centerline of the external tank (0 = 0 deg) are presented in Figures 7c, d, and e. The data from the current test (IH-97) are compared with data from the previous entries in Tunnel A, i.e. IH-72 and IH-85, as well as turbulent theory of Reference 9. The data pertain to the integrated vehicle while the theory was calculated for the interference-free tank alone. Agreement of data from Test IH-97 with previous data and theory (upstream of the interference regions) is considered good for validation of the basic results.

Tabulated data for phase A and phase B of Test IH-97 has been published in References 2 and 3. Tabulated data for phase C has been published in References 4 and 5.

TEST ANOMALIES

During the IH-97A DFI-configuration test at the low Reynolds number and prior to going into the three-stage high Reynolds number runs, a tunnel pressure relief valve kept opening. It was then determined that the high Reynolds-number runs could not be obtained during that running shift. The test was continued at lower Reynolds-number, as shown in the enclosed run portion of the test, the test data appeared questionable. After minor corrections were made to the data reduction method, however, the output compared more favorably with previous test data.

Prior to the design-configuration test IH-97B, a vacuum-tank-to tunnel valve problem was encountered. A limit switch was found

TEST ANOMALIES (Concluded)

out of adjustment but was corrected, and the test started soon after.

Twelve scheduled yaw runs at angles of ±9 degrees could not be achieved because tunnel hardware interference precluded moving the sector center-of-rotation adequately forward. Nine additional runs were added to the run schedule in order to fill the test time. During phase B, the SRB trip was lost during runs 84 and 85.

REFERENCES

- 1. STS32-0663, "Pretest Information for 0.0175-Scale Thin-Skin Thermocouple Model 60-OTS Aero Heating DFI and ET Design Data Test in the AEDC VKF A Hypersonic Wind Tunnel Test IH-97A/B" (August 1982)
- AEDC-TSR-82-V37, "NASA/Rockwell International IH-97 Space Shuttle Heating Test" Crain, W. K. and Nutt, K. W. (December 1982)
- 3. V--A-1X, "NASA/RI IH-97 Heating Test" Crain, W. K. and Nutt, K. W. (December 1982)
- AEDC-TSR-83-V2, "NASA/AEDC External Tank Interference Heating Test" Crain, W. K. and Nutt, K. W. (December 1982)
- 5. V41C-2E, "NASA/AEDC External Tank Interference Heating Test" Crain, W. K. and Nutt, K. W. (December 1982)
- 6. AD78-SH-0082, "Pretest Information for Testing the 0.0175-Scale Thin Skin Thermocouple Model 60-OTS in the AEDC VKF A Hypersonic Wind Tunnel, Test IH-85" (March 13, 1978)
- 7. Waiter, Serge-Albert, "Determination of Temperature Efficiency R=Taw/To in Low Temperature Wind Tunnels (An Engineering Attempt)" NA-77-299, 47th Semiannual Meeting of the Supersonic Tunnel Association (April 1977)
- Test Facilities Handbook (Tenth Edition) "von Karman Gas Dynamics Facility, Vol. 4" Arnold Engineering Development Center (May 1974)
- DeJarnette, Fred R. and Jones, Michael H., "Calculation of Inviscid Surface Streamlines and Heat Transfer on Shuttle Type Configurations, Part 2 - Description of Computer Program" NASA CR-111922 (August 1971)
- 10. Fay, J. A. and Riddell, F. R. "Theory of Stagnation Point Heat Transfer in Dissociated Air" Journal of the Aeronautical Sciences, Vol. 25, No. 2 (February 1958)

TABLE I

TEST CONDITIONS

A summary of the nominal test conditions for Phase A and Phase B is given below:

M	PT, psia	TT, OR	r,psia	T, OR	$Re/ft \times 10^{-6}$
2.24	23	637	2.0	318	4.2
2.50	26	649	1.5	289	4.0
2.75	31	650	1.2	258	4.1
3.00	34	675	0.9	240	3.8
3.00	36	723	1.0	256	3.7
3.00	52	683	1.4	243	5.7
3.24	45	725	0.9	234	4.0
3.50	55	72 9	0.7	211	4.2
3.77	61	738	0.6	192	4.0
4.00	72	738	0.5	174	4.1

A summary of the nominal test conditions for Phase C is given below:

M	PT, psia	${\mathrm{TT}}$, $^{O}_{R}$	P,psia	T, OR	$Re/ft \times 10^{-6}$
4.00	175	1440	1.1	350	3.6
1	140	1240	0.9	300	3.6
j	120	1050	0.8	250	4.0
1	102	980	0.7	230	3.8
1	60	740	0.4	180	3.5
	119	740	0.8	180	6.6
V	20	1430	0.1	350	0.4

TABLE II

Aeroheating OFI Verification Test

IH-97A

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NOTE: Tr = Boundary Layer Trips on the SRB's Run #2, Repeat of Run #1 (Verification)

Run No. 3, Trash (omitted)

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TABLE II (Continued)

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NOTE: Run #32, B was set at +0.2, will pick up re-run during Phase B. T_r = Boundary loyer trips on the SRB's and orbiter.

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TABLE II (Continued)

IH-97B

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NOTE: TVC Pod on Left SRB Only Tr = Boundary Layer Trips on the SRB's and Orbiter

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DATA SET /BIIN NIMBER COLLATION SUMMARY
SCHO. CONTROL DEFLECTION
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Note: TVC pod on left SRB only.

Tr = Boundary Layer Trips on the SRB's and Orbiter

TABLE II (Concluded)

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IH-97C

S + TVC + Tr	TEST:		<u></u>		DAT	A SE	T/RUN	YON 7	4BER	ATA SET/RUN NUMBER COLLATION SUMMARY	ATION	SUMM	ARY		DATE				
OTS + TVC + Tr	DATA SET			CHO.		FROL I	DEFLEC	TIGN	NO.	SAR	H NUMB	ERS (OR AL	TEHNY	TE IND	EPENDE		A ELL E	
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Trips Off SRB Only
F. Trips on SRB's

TVC Pod on Left SRB Only

TABLE III (Concluded)

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		89	101	501		701	102														1.9	1	ICVAR (1)	
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TFST:		DATA SET																				<u> </u>		e programa de la composição de la compos



Table IV

				PB CALOR	LMETER	DY1 1.	<u>DEATTONS</u>	
Phase No.	Sanso No.	typ:	x PS En.	n MS In.	: 2 /%	o V deg	Ship Flight thick-instr.	Beverte
A. B. C.	3001	7/C	944	9.52	.199	90	8440/807R	R/E SEE NOTOR CASE
A & C	3002	1/6	544	9.52	199	135	8441	R/H SRB MOTOR CASE
4.60	3003	T/C	544	9.52	.199	180	8442	R/B SRE MOTOR CASE
ABC	3004	T/C	1061	18.58	.498	80	8437	B/A SRB MOTOR CASE
	3005	T/C	1061	18.58	.498	180	8438	R/B SRB MOTOR CASE
A	3006	T/C	1397	24 .45	.692	90	9439	R/B SRE MOTOR CASE
A	3007	T/C	1884.9		.974	6	عدد والمراجع والتناقية المراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع والمراجع	R/B SRB AFT. SKIRT
Ą	3008	17G	1910	33.42	.988	90		R/B SRB AFT. SKIRT
A	3009	170	1910	33.42	.988	135		A/B SRB AFT. SKIRT
Ą	3010	T/C	1910	33.42	.938	162		R/E SRE APT. SKIRT
Ą	3011	1/C	1910	33.42	.988	270		B/R SRB APT. SKIRT
A	3012	T/C	1920	33.60	.994	53	8409	R/H SRB AFT. SKIRT
		 						
							807R-	
ARC	4013	T/C	200	3.5	9	C		1/8 SRB STAGN, POINT
	4014	T/C	214	3.74	.0081	0	7427	L/H SRB NOSE CONE SKIRT
ABC	4015	T/C	286	5.01	.0497	54	7446	L/B SRB NOSE CONE SKIRT
ABC	4016	T/C	287	5.02	.0503	74	74 12	L/H SRB NOSE CONE SKIRT
ABC	4017	T/C	300	5.25	.0578	180	7429	L/H SRB NOSE CONE SKIRT
ABC	4018	T/C	300	5.25	.0578		7428	L/H SEB NOSE CONE SKIRT
ABC	4019	T/C	313.5	5.49	.0656	72	7413	L/B SEB NOSE COME SKIRT
ASC	4020	T/C	388	6.79	.1086	0	7430	L/H SRB HOSE CONE SKIRT
ABC	4021	T/C	388	6.79	.1086	45	7431	L/E SRB NOSE CONE SKIRT
	4022	T/C	388	6.79	- 1086	60	7432	L/H SRB NOSE CONE SKIRT
A8C	4023	I/C	419	7.33	-1265	46		L/B SRB MOTOR CASE
A BC	4024	T/C	876	15.33	.3906		7418	L/H SRB MOTOR CASE
A 8	4025	I/C	1237	21.65	.599	0	7419	L/E SRE MOTOR CASE
ABC	4026	I/C	1237	21.65	.599	99	7420	L/H SRB MOTOR CASE
ABC	4027	T/C	1237	21.65	.599	279	7421	L/H SRE MOTOR CASE L/H SRE AFT SKIRT
A	4028	T/C	1851	32.40	.954	18	7445	TAE SKR WLI SKIKI
								
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NOTE: X NOSE IS X = 200 L = 1725.2

. Table IV (Cont'd)

BRB PROTUBERANCE INSTRUMENTATION LOCATIONS

	f -		-		7			
	Sansc		X P5	X PS	X/L	Skin	Flight	Remerks
	No.	Type	IN.	IN.	i	PDEG thick-	dinger.	
Dhan II		-	0 11 0	414.	<u> </u>	DEG	ident	
Phase No.							BO7R-	
AB	4063	S-B	1838	32.165	.946	260	7416	SAB PROTUERANCE
AB	4064	5-B		32.165	.746		7617	TO THE PARTY
AB	4065	S-B		32.165	.9.6	0	74 15	L/A SAB RICK RING
				- The second second		-	/4 13	LA SRE RICK RING
ABC	3066	\$-B	1838	32.165	.946	48	31/6	
ABC	3067	S-B	1839	32.180	.547		8448	R/H SRB RICK RING
_	306B	3-8	1838			35	84.06	R/M SRB RICK RING
ABC	0000		1030	32.165	.946	42	8447	R/E SRB RICK BING
A 80	4069	5-8	-					
AB			1304	26.32	.753		74 14	LIE SHE ATTACH RING
AB	4070	5-8	1504	26.32	753	90	7424	L/H SRB ATTACH RING
AB	4071	3-5	1304	28.32	.753	180	7425	L/H SRB ATTACE RING
							·	1
							8000	
ABC	3203	S-R	1506	23.355	.757	40	B07T-	
				-64.433	12/	50	8517	BAR STRIT FOR FACE
ABC	3207	CB	1.50	2 030	1.4.6	990	40.45	FIG
ST unit was aft	320/	3-0	450	7.875	. 145	270	8527	R/H SRB CABLE TRAT FIG.
	4.00						B07R-	
AB.	4186	S-B	1859.1	32.53	.962	16	7472	L/H SRB SEP. MOTOR
								FAIRING
			1					
.B	4187	5-B	1856.3	32.485	.960	314 43		TVC POD MEASTREMENTS
ß	4188	S-B	1845.3	32.293	.954	292 59		L/B SRD
d B	4 189	5-3	1856.3	32.485	.960	282 45		L/H SRB
ß	4 190	5-3	1856.3	32.485		271 14.		L7E SRB
B	4191	5-8	1845.3	32.293	952	24791		L/H SRB
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NOTE: S-B= SCHMIDT - BOELTER

Interneporal

BRB ACREAGE MEASUREMENTS

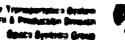
	Seaso: No.	Type	x _B FS	E, MS	¥/1	o PDEG		Flight lauer. ident.	Ae ne ska	
Phase No.								3071-		
A. D.C.	3224	T/C	280	4.90	.0462	41		84 PS	OPEN (EUMINATED)	
	3225 3226		388	6.79	.1086	10		M 36		, , , , ,
6.7	3227	1/C	460	8.05	. 1502	180	THE PERSON NAMED IN	94.99	and the state of a place of the state of the	İ
A	3228	17/6	462	8.08	. 19 18	144	CO THE PERSON	84,87		
A	3229	17C	490	8.58	.1680	105		8529		
.4	3230	17C	280	8.40	1. 1623	325	•	8550		
AAA	3231	170	485	8.49	. 1651	330		6516		
Ā	3232	T/C	611.5	10.70	.2385	735		9495	in the same of the same same same same same same same sam	l
Ã	3233	170	931.5		1.424	180		84.90		1
~	3234	170	1251.		.609	180]	8491		l
Ã	3235	170	1481.	5 25.93	.742	0		8492		1
AAA	3236	7/0	المستحدث التراجي بالا		.742	90		8499		1
A	3237	I/C		5 28.66	833	0_		8502		1
A	3238	T/C		5 32.86	.972	49	<u> </u>	8475		1
A	3239	T/C	1910	33.42	.991	95	-	8477		1
A	3240	T/C	1910	33.42	.99-1	315		 64 //		1
		 			-	 	 			1
	-	 				+		8077-		1
هاه	4208	77C	280	4.90	.0462	16		7513		
A.A.C	4209	170		4.90	.0462			7483]
ASC	4210	170		4.90	.0462	270		7484]
AB.C	4211	170		6.79	1.1086	10		7515		4
A	4212	17/0		8.08	1.1318	0		7421		4
A	4213	170	462	8.08	. 1518			7482		4
A A A	4214	170	and the second second second second	8.40	1.1623	110		7529		4
A	4215	1770	485	8.49	. 1651	330		7516		4
A	4216	1/0			.2385			74.89		4
Ā	4217	T/C			.424	180		7490		1
A	4218	I/C			.609	180		7491		1
A	4219	1/0			.742	180		74.94		1
A	4220	7/0	1637		.633	90		7470		7
A	4221	17/0		5 32.86 5 32.85	.972	135		7471]
A.	4222	1/(1877	3 32.86	1.972	1166	-	7473]
A .	4263	+•	1011	1	-	+				4
	-	┽	 		1	1				4
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		+	 							4
	-	1								-
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ET CALORIMETER DYI LOCATIONS.

	Seas No.	Typ	ET FS	In MS	8/1	0	Skip	Flight	Remarks
Phase No.	1	-	IN.	IN.	 	DEG.	BB1CH-	instr.	
ABC	5029	5-3	350	6.125	.012	180		T07R- 9001A	MOSE CAP
ABG	5030	1/c	467.4	8.180	.076	174		9005A	LO2 TANK
ASC	5031	7/C	467.4	8.180	-076	264		9004A	LO ₂ TANK
ABC	5032	5-B	672.5	11.77	. 1871	180		9008A	LO, TANK
ABC			672.5	11.77	. 1871	270			
ABC	<u> </u>	T/C						9007A	LO TANK
				14.45	.270	270		9010A	LO, TANK
ABC		T/C		7.93	.076	25		9003A	LO ₂ TANK
BC	5247	I/C	672.5	11.77	.1871	8.25		9006A	LO, TANK
A.B.C	5248	T/C	825.5	14.45	. 270	Ö		9009A	LO, TANK
ABC	5035	S-B	941.4	16.47	.3328	180		T07R- 9017A	INTERIANK
ABC	5036	S-B	941-4	16.47	.3328	251.4		9016A	INTERIANK
ABC	5037	S-B	941.4	16.47	.3328 .	270		9015A	Intertank
ABC	5038	S-B	941.4	16-47	.3328	288.6		9014A	INTERTANK
ABC	5039	S-B	1098.5	19.22	-4179	2.5		9018A	INTERTANK
ABC	5040	S-B	1054.4	16.98	.4103	2.5			INTERTANK
ABC		S-B	1110.4	19.43	.4244	2.5			INTERIANK
ASC									
<u>l</u>					3515	25			INTERTANR
ABC			1034.2		3831			902 JA	INTERTANK
ABC	5044	S-B	1082	18.94	4090	180		9022A	intertank
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NOTE: T_T NOSE IS T_T= 327.2 L= 1845.5



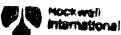


Table IV (Cont'd) ET CALORIMETER DFI LOCATIONS

DI	Senso No.] Typ	x _T FS In.	E _T MS	1/1	% BEG	Skin thick-	flight inser.	Masthe
Phase No.	2011							TO7R-	
A. E	5045	I/C	1489	26.06	.6295	172.5		9026A	LH _q TANK
ABC		T/C	1489	26.06	.6295	264.4		9025A	LE, TANK
A B.C	3047	170	2002.	35.04	.9078	168.8		9029	LE, TANK
ABC	207.8	170	2017	35.30	9156	5.6		9027A	LE ₂ TANK
ABC	3049	17C	2039	35.68	9275	356.3		9030A	LE ₂ TANK
A.B.C.	5050	Ť/C	2057	36.00	.9373	5.6		9028A	LE2 TANK
46C	5051	T/C	2057	36.00	.9373	276		9031A	LE ₂ TANK
A.B.C	5052	I/C	2057	36.00	.9373	340.6		9032A	LH, TANK
A.6.C.	5249	I/C	1130.25	19.78	.435	0		9023	LB TANK
ABC	5250	T/C	1147-4	20.08	.444	358		9020A	IN: TANK
ABC	5251	T/C	1489	26.06	-630	352.5		9024A	IR: TANK
ABC	\$252	1/C	1871	32.74	.837	310			LA TANK
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Table IV (Cont'd)

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ET THERMOCOUPLES AT SOFT PLUG LOCATIONS Skin Flight Sensor 75 In MS I/L Bonerks Typ thick-| instr. No. Phase No. DEG IN. IN 6.56.0257 983 T/C 375 0 Same Loc. 48 1/52187 A 395 6.91.0366 Ô 600 T/C ... A 7.35,0501 420 0 Ā 601 T/C 7.88.0664 Ō 5152 T/C 450 A 8.40.0826 5153 17C 480 5154 T/C 375 6.56.0257 23 404 6.91 -04 14 & of Romo 3155 T/C ABC SISA TIC 421 7 37 0507 25 A.B.C 5157 17/C 439 2.5 7 68 0604 C 5158 17/C 25 4.76 8.33 DE05 25 C 5159 7/C 4 96 8.68.0913 C 5160 1/C 1120.7 19.61.430 5161 T/C 1120.7 19.61.430 343.12 C 5162 T/C 1152 20.16.446B 20 20.62.4609 20 5163 T/C 1178 (MISSING) ASSILES 20.62.4609 358 5164 T/C 1178 20 62.4609 331 5165 T/C 1178 5166 T/C 1205 21.09.4755 20 71 09 4785 8167 T/C 1205 21.54.4896 5168 T/C 1231 20 21.54.4896 331 5169 T/C 1231 32.41.8261 332 5170 T/C 1852

Table IV (Cont d) Cont Growth Const



ET THERMOCOUPLES AT SOFI PLUG LOCATIONS

	Seasor No.		Ar F5	IT MS	X/L	2		flight	Memorks
Phase No.		Type	11	IN		DEG	2444 2444	instr.	
A	5171	T/C	1871	32.74	.8364	16			
A	5172	I/C	1878	32.86	.8402	331			
AC	5173	1/C	1916	33.53	.8607	20			
	5174	T/C	1916	33.53	.8607	358			(MISSING) W/627
	3175			33.53	. 860 /	332			(MISSING) W/630
A	5176	I/C	1949	34.11	.8786	20			
A	5177	I/C	1949	34.11	.8786	358			
A	5178	Î/C	1949	34.11	.8786	331			
	3179	17C	1974	34.54	. 8922	-18			
A	5180	Ŧ/C	1981	34.67	CAPR.	332			
A	8185	f/C	2039	35:68	9274	4.4			
8 C	699	T/C	419.5	7.34	050	79.8			
BC.	715	# / C	419.5	7.34	.050	37.7			
			-4-90 - 5	7.580					
				71300	# 156				Genter of casp
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Table IV (Cont'd)

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INSTRUMENTATION LOCATIONS IN SLA REGIONS

	84240	7	in co	والتسادات والمرادات		-	-	T. TONS	 	
Phase No.	No.	Type	ÍŃ	I _T MS	2/1	DEC	Shin Chick-	rlight inser.		emerks
ABC	5241	5-8	353.0	6.178		31.5		50109	Lo Cal	le Tray r
A 4 C	1077	776	042 05	15.10	10	666			<u> </u>	
~ 0 0		1,7,0	804.73	13.10	. 47	260			Inc	r-Tenk
ABC	5073	1/C	881.15	15.42	.30	280				
4 5 6	5074	T/C	A90.61	15.74	7.	280				
•						200				
ABC	3075	T/C	918.06	16.07	.32	280				
ABC	3076	I/C	936.52	16.39	.33	280				
ABC	5077	I/C	954.97	16.71	. 34	280				
ABC	5078	1/c	973.43	17.04	.35	280				
ABC	5079	17C	991.58	17.36	.36	280				
ABC	\$080	T/C	010.34	17.68	.37	280				
ABC	5061	7/C	038.03	18.16	385	280				
ABC	5082	1/C	056.5	18.49	.395	337.5			Inte	r-Tank
ABC	5063	1/c	194.9	20.91	.470	337.5				
ABC	5084	T/C	250.0	21.88	.500	337.5				
ABC	5085	1/0)	056.5	18.49	. 395	330			Inte	r-Tank
ABC	5086	T/C	1123	19.65	.431	330				
ABC	5087	T/C	056.5	18.49	395	343.12				
ABC	9088	1/C)	047.3	18.33	, 390	40			Inter	-Tank
BC	5096.	7C)	342.2	23.49	. 53	17				
ec	5097	1/01	342.2	23.49	. 5 5	11.8				
ABC	635	1/61	342.2	23.49	.33	Ö				
ec	000	*/٢	342.2	23.40	.5.5	348				
ec	100	175	342.2	21.40	33	32.5				
ABC	5141	42	470.5	7.58	1556				CONTRA	DE RAMP
ŀ										
t										



Table IV (Cont'd)

1102	1 7 P4 17C	TN	In 25.92	1/L .625	DEG	Skin thick-	flight instr-	Remerus
102	Ť/C	1480.94	25.92	.625	שטע			1
102	Ť/C				17	2011	ident	
103		1480.94	Name and Address of the Owner, where the Person of					
		1	25.92	.625	11.8			
	1/C	1480.94	25.92	.625	0			
	T/C	1480.94	25.92	.625	348			
		1		,				
1	i	ł	25.92	1	(1		
106	T/C	1554.69	27.21	.665	337.5			
1102	+/5	h 5 8 4 . 6 (27.21	.665	330			
		i						
108	I/C	1554.69	27.21	.665	315			
109	T/C	1951.50	34.15	.880	270			
	ļ	ŀ	l	i	255			
	1	į.	1	·	1			
5111	I/C	2058	36.02	1.938	313	<u> </u>		
5112	1/0	2058	36.02	.938	0			
E113	7/0	2058	36.02	.938	23			
	Ì				l .		<u> </u>	
		1		L	240			
5115	1/0	1951.5	4 34.15	.680	285			
5118	17/0	C2036.4	6 35.64	. 926	240			
	1				785	 	 	
	1	1		l .	1			
5120	1/	C2058.0	36.02	.938	15	+	-	
		1		1	1		 	
•	ľ	1			1			
5123	17/	G1803.6	31.56	1.800	58.			
5124	17	d1877.4	6 32.86	.840	58.	3		
		i	1	•		9		
	_		I	1				
5126	17/	92036.4	4 33.64	1.476	130.	1	1	
-	士			1				
	1107 1108 1109 1110 1111 1112 1113 1114 1115 1115 1118 1119 1120 1121 1122 1123 1124 1125	107 T/C 108 T/C 109 T/C 1109 T/C 1111 T/C 1111 T/C 1112 T/C 1113 T/C 1113 T/C 1115 T/C 1115 T/C 1119 T/C 1120 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1121 T/C 1122 T/C 1123 T/C 1123 T/C 1124 T/C 1124 T/C	107 T/Ch594.69 108 T/Ch594.69 109 T/Ch594.69 110 T/Ch951.56 111 T/C2058 5111 T/C2058 5112 T/C2058 5114 T/C1951.5 5115 T/C1951.5 5118 T/C2036.4 5119 T/C2036.4 5121 T/C2058.0 5121 T/C2058.0 5122 T/C2058.0 5123 T/C1803.6 5124 T/C1877.6	107 T/CD594.69 27.21 108 T/CD594.69 27.21 109 T/CD594.69 27.21 109 T/CD951.54 34.15 110 T/CD951.54 34.15 111 T/C2058 36.02 112 T/C2058 36.02 113 T/C2058 36.02 114 T/C1951.54 34.15 115 T/C1951.54 34.15 117 T/C2058 36.02 118 T/C2036.46 35.64 119 T/C2036.46 35.64 119 T/C2058.0 36.02 112 T/C2058.0 36.02 112 T/C2058.0 36.02 112 T/C2058.0 36.02 112 T/C2058.0 36.02	107 T/Ch594.69 27.21 .665 108 T/Ch594.69 27.21 .665 109 T/Ch991.54 34.15 .880 110 T/Ch991.54 34.15 .880 111 T/C2058 36.02 .938 112 T/C2058 36.02 .938 113 T/C2058 36.02 .938 114 T/Cl991.54 34.15 .880 115 T/C1991.54 34.15 .880 117 T/C2058 36.02 .938 118 T/C2058 36.02 .938 119 T/C2036.46 35.64 .926 119 T/C2036.46 35.64 .926 119 T/C2058.0 36.02 .938 121 T/C2058.0 36.02 .938 122 T/C2058.0 36.02 .938 123 T/C1803.64 31.56 .800 124 T/C1803.64 31.56 .800	107 T/CD554.69 27.21 .665 330 108 T/CD554.69 27.21 .665 315 3109 T/CD551.54 34.15 .880 270 3110 T/CD551.54 34.15 .880 255 3111 T/C2058 36.02 .938 315 3112 T/C2058 36.02 .938 0 3113 T/C2058 36.02 .938 23 3114 T/C1951.54 34.15 .860 240 3115 T/C1951.54 34.15 .880 285 3118 T/C2036.46 35.64 .926 240 3119 T/C2036.46 35.64 .926 285 3120 T/C2058.0 36.02 .938 15 3121 T/C2058.0 36.02 .938 240 3122 T/C2058.0 36.02 .938 345 5123 T/C1803.64 31.56 .800 58. 3124 T/C1877.46 32.86 .840 58. 5125 T/C1951.54 <td>102 T/CD 554 .69 27.21 .665 330 108 T/CD 554 .69 27.21 .665 315 3109 T/CD 554 .69 27.21 .665 315 3110 T/CD 554 .69 27.21 .665 315 3110 T/CD 551.54 34.15 .880 270 3110 T/CD 58 36.02 .938 315 3112 T/CD 58 36.02 .938 0 3113 T/CD 58 36.02 .938 23 3114 T/CD 551.54 34.15 .880 240 3115 T/CD 551.54 34.15 .880 285 3118 T/CD 36.46 35.64 .926 240 3119 T/CD 36.46 35.64 .926 240 3120 T/CD 58.0 36.02 .938 15 3121 T/CD 58.0 36.02 .938 345 3122 T/CD 58.0 36.02 .938 345 3123 T/CD 58.0 36.02 .938 345 3124 T/CD 58.0 36.02 .938 345</td> <td>1107 T/CD 554 .69 27.21 .665 330 1108 T/CD 554 .69 27.21 .665 315 1109 T/CD 554 .69 27.21 .665 315 1100 T/CD 551 .54 34 .15 .880 270 1111 T/CD 58 36.02 .938 315 1112 T/CD 58 36.02 .938 0 1113 T/CD 58 36.02 .938 23 1114 T/CD 58 36.02 .938 23 1115 T/CD 55 .54 34 .15 .880 240 1116 T/CD 55 .54 34 .15 .880 240 1117 T/CD 55 .54 34 .15 .880 285 1118 T/CD 36 .46 35 .64 .926 240 1119 T/CD 36 .46 35 .64 .926 240 112 T/CD 58 .0 36.02 .938 15 112 T/CD 58 .0 36.02 .938 240 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345</td>	102 T/CD 554 .69 27.21 .665 330 108 T/CD 554 .69 27.21 .665 315 3109 T/CD 554 .69 27.21 .665 315 3110 T/CD 554 .69 27.21 .665 315 3110 T/CD 551.54 34.15 .880 270 3110 T/CD 58 36.02 .938 315 3112 T/CD 58 36.02 .938 0 3113 T/CD 58 36.02 .938 23 3114 T/CD 551.54 34.15 .880 240 3115 T/CD 551.54 34.15 .880 285 3118 T/CD 36.46 35.64 .926 240 3119 T/CD 36.46 35.64 .926 240 3120 T/CD 58.0 36.02 .938 15 3121 T/CD 58.0 36.02 .938 345 3122 T/CD 58.0 36.02 .938 345 3123 T/CD 58.0 36.02 .938 345 3124 T/CD 58.0 36.02 .938 345	1107 T/CD 554 .69 27.21 .665 330 1108 T/CD 554 .69 27.21 .665 315 1109 T/CD 554 .69 27.21 .665 315 1100 T/CD 551 .54 34 .15 .880 270 1111 T/CD 58 36.02 .938 315 1112 T/CD 58 36.02 .938 0 1113 T/CD 58 36.02 .938 23 1114 T/CD 58 36.02 .938 23 1115 T/CD 55 .54 34 .15 .880 240 1116 T/CD 55 .54 34 .15 .880 240 1117 T/CD 55 .54 34 .15 .880 285 1118 T/CD 36 .46 35 .64 .926 240 1119 T/CD 36 .46 35 .64 .926 240 112 T/CD 58 .0 36.02 .938 15 112 T/CD 58 .0 36.02 .938 240 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345 112 T/CD 58 .0 36.02 .938 345

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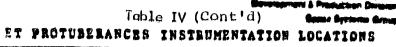
Table IV (Cont'd)

Gesco Transportation System Development & Production Service System Systems Group



INSTRUMENTATION LOCATIONS IN SLA REGION

PHase No.	Senso: No.	Type	x _T FS IN	e _t MS In	X/L	Ø Ø Deg		Flight instr.	Remarks
				31.56	800	68	3616	ide*!	
4 8 C	5128	T/C	877.46	12.86	. 840	68			
ABC	\$129	T/C	1951.54	34.15	.880	68			
ASC	5130	T/C	2036.46	35.64	.926	68			
ABC	3131	1/C	1803.64	31.56	.800	75			
ABC	5132	7/C	877.46	32.86	.840	75			
ABC	5133	T/C	1951.54	34.15	.880	75			
ABC	5 1 3 4	170.	2036.46	35.64	.926	75			
								•	
ABC	5259	S-B	1200	21.00	.473	37.5			LHo TR Cable Tray
									top€
ABC	5260	S-B	1197	20.95	-471	35			LH7 TR. Center of Ramp
,									



Phase No.	Seaso No.	Тур	T _T F5	x _T MS In	1/1	DEG	Skin Rhick-	Flight instr.	Mearks
•								Body Poi	a c a
ABC.	5053	5 - B	1008	17.64	369			95-012	10- Feedline
ABC.	5054	S-B	996	17.43	362			038	10 Peedline
ABC	3055	S_B	1324 6	23_180	540			040	Cable Tray Pig.
ABC	5056	8-8	1904.2	33.35A	856			E 40	Cable Tray Pig.
AAC	5057	8-8	1129.9	19.77	.435			039	ET/ORB FWD Strut
AAC	3058	9-8		16.795		270		04 1	Bolt Catcher Fig
A.B.C	5059	S-B	2002					042	ET/ORB Thrust Strut
ABC	5060	S - B						045	Sway Strut Fig.
ABC	5061	S - B						046	Vertical Strut Fig.
ASC	5062	S - B						047	Crossbeam Fig.
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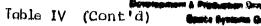
Space Transportation System Descriptions & Production Description States Sententia Grand



Table IV (Cont'd)

•		Appendix no.		NTATION					
Diama Na	Senso: No.	Typa	_	I _T MS	X/L			Flight instr.	Remarks
Phase No.			IN 1102.34	IN 19.29	-420	DEG 36.32	2000	<u>ident</u>	
		l	l i						
			1106.0	19.36		32			
BC	2073	T/C	1111.57	19.45		36.32			
ABC	3504	T/C	1120.3	19.60		32			
BC	2074	17C	1120.79	19.61		36.32			
BC	5506	176	1160.0	20.30		32	<u></u>		
ABC	5508	T/C	1174.3	20.55		32			
A.C	8810	7/0	1224.4	21,427		32			
			1238.7			32			
BC	5513	₹/C	1353.6	23.688		32			
ABC	5515	T/C	1367.9	23.938		32			
BC	5516	T/C	1418.2	24.819		32			
BC	2085	T/C	1434.46	25.103	.60	33.75			
			1482.8			32			
•			1497.1	26.199		32			
BC	5501	I/C	1547.4	27.080		38	ļ		
5.C	5520	T/C	1547.4	27.080		32			
5.C	3503	1/0	1561.7	27.330		38			
BC.	5521	1/0	1561.7	27.330		32			
bC	3505	170	1612.0	28.210		38			
	5522	170	1612.0	28.210	Area Salan	32			
_		Ι		20 244		29.B			
AC			1	28.334					Trice Addition
				28.334	l	37.7			(MISS/NG)W/62b
A.C	5507	7/0	1626.3	28.460		38			
<u> e</u> c	3523	170	1626.3	28.460		32			
	1	T	T					1	

Bassa Temperatura Symus Berespensor & Principles Symuson († 13)





ET INSTRUMENTATION UNDER PEEDLING-BLUE STREAK

Phase No.	Benson No.	7770	a _T F5 In	i _t ms	1/L		Skin Chick-	Flight instr.	Remorks
B.C	5524	7/C	1690.0		.739	38			
BC	3323	170	1690.0	29.575	.739	32			
B.C	3509	17c	1741.2	30.471	.766	38			
<u>B</u> .C	5526	T/C	1741.2	30.471	.766	32			
8 C	5511	Ť/C	1755.5	30.721	.774	38			
B.C.	3527	Ī/C	1755.5	30.721	.774	. 32			
BC	710	7/C	1803.64	31.564	.800	29.5			
BC	726	T/C	803.64	31.564	.800	37.7			
				31.602					
				31.852					(MISSING) W/ 682
		Ì	18201.						
			1870.4	32.732					(MISSING) W/633
			1870.4	32.732					
_			1884.7			38			(MISSING) WISS
				32.982					
				33.825					
BC BC				33.825					
_	5533		المستسابية والمستسابية	33.863					
				34.113					
				20.550					
				20.748					
				32.856					
				33.180					
<u> </u>	2056	1/0	1010	33,150	. 630	4.3			

- B. 15. P.

4

Table IV (Cont d)

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ET INSTRUMENTATION UNDER PEEDLINE - BLUE STREAK

1			و و المحالية المرافع	TATION				REAK	
I	Seasor No.	Тур	I _T PS IN	in	1/L	DEG	Skin thick-	Flight instr.	Regards
hase No.	-								
ABC	2538	IVC	1984.7	32.982		27_			
ABC	5539	Ŧ/C	1896	33.180		27			
L .	5540	S-3	1896	33.180		32			ET Surface
					21:				
					-				
	-								
ļ									
ł									
ı							-		



Table IV (Cont'd) Gran Spinistrumentation Verification Locations

,	Season No.	Type	• _	I _T MS	¥/L	0 Y	thick-	flight instr.	Remerks
Phase No.		- 7 17*	IN	IN		DEG	7000	ident.	
AAC	5242	S-B	401.0	7.02	ERNAL . 04	TANK			Replaces exicting
~ 6									M/C 737 at PWD Loca-
		-							tion on LO, Tank
ABC	3032	S-B	672.49	11.77	. 1871	180			Existing S-B DYI
AAC	9293	T/C	650.16	11.38	175	18.			Mid Location on
ABC	3254	T/C	696.3	12.18	. 200	180			LOg Tank
ABC	5035	5-B	941.38	16.47	.3328 .300	180 180			S-B & T/C on new Intertent, FWD and
			973.12		.350	180			Of intertank on bote
i	•								ton &
440	5037	5-3	941.38	16.47	.3328	270			6-B & T/C locations
AAC	4 7 g.7	\$ / C	900. 21	. 15 7/	2.10	.270			ph new intertant
48 C	9258	7/5	954.67	16.71	340	270			FWD of bolt catcher
							,		
ABC	628	I/C	1157.6	20.26	.450				Existing T/C 628 4
ABC	631	1/6	1194.58	20.91	.470	0			131 on FWD part of
						-			
					Š	RB			
ABC.	2242	6 - 5	200	3.5	0.0	0			R/H SRB Stagn. Point
					0.0				
ABC	4013	7/C	200	3.5	0.0	0			A/H SRB Stagn. point
ASC	3261	1/0	225.96	3.95	.015	90			R/H SRB
i		-		 					
	-								
				-				<u> </u>	
					-	<u> </u>	<u> </u>	<u> </u>	
	 	 	<u> </u>	 	<u> </u>	 			
		 			<u> </u>		<u> </u>		
					<u> </u>				



TABLE IV (Concluded) Company C

	Sens No.	Typ	by F5	e _t ms	2/1	0	Ski	a Plight	Remarks
ABC	626	7/0		19.94		DEC	- Pies	-idene	
				.,,,,,		- 0	-		Thousand 725
A	4627	9/6	-	20.09	 		-	-	
					 	+			A 61 5174
ABC	629	17/0		20.42		10	+	-	
									5/64
A	630	T/C		20.58		0	┿		
_							1	†	A A 8175
ABC	1932	T/C		21.22		0			A SELV
	J	-							* 5514
ABC	حدوا	T/C		21.55		Ö			" " 56.85
ABC.	634	17c							
₩0C.	1034	11/6		21.68		0			M # 554/
	2077	778	4 14 4 6	25.103	-	1			
	<u> </u>	╀╾┷┦	. 7 . 7 . 8 0	23.103	.80	36.3	4		(MISSING)
	724	- (6					<u> </u>		
		17.0	1434.45	25 103	60	37.7	 		(MISSING)
	708	4/5	1434 16	25,103			·		
			44.4	25,103	0	29.8	 	 	(MISSING)
C	648				. 926	0	 		
BC	696				.926	17	 		
C	7/2				426	29.8	 		
C	813				.900	8/5	1		
	2005				.703	23			
	2003				.835	23			
	2004				900	AJ			
	2001				569	23			
	2008	-			.58/	3/			
	2009				.616	3/			
	2010	-			.650	3/			
	2060				.725	326			
	2064	_			. 936	145			
Č.	2019				935	45			
	2114				.210				
	2/25				400	202			
BC	LIYO				.924	211.9	010		
ے م	2/15	$\perp \perp$				249.9	.0295		
8 C 🖟	2146				.110	170	.010		
c L	2/2/				.985	258	.0205		
	1/50				926	775			
C	2/60				926				
Ž F	16/	-				45			
٦ ا	667				546	3/			
 -			 -						
F									
<u> </u>			 -						
 									
<u></u>									

TABLE V

SCHMIDT-BOELTER GAGE CALIBRATION CONSTANTS GAGE SENSITIVITY TO INCIDENT RADIANT FLUX (ABSORPTIVITY = 0.97) USED FOR DATA REDUCTION C

 c_1

GAGE No.	SENSITIVITY mv/Btu/ft ² sec	GAGE No.	SENSITIVITY mv/Btu/ft ² aec
	Mark Mark and an arrange of the second of th	مينفر من المنابع المنا	1100
5062	.512	5044	.580
5061	.462	5054	.484
5035	.570	3203	. 528
SO32	.612	4071	.450
5036	. 500	5058	.486
3207	. 534	5242	.\$10
4188	.618	4191	.525
5042	.550	3068	
3243	.412	4187	.452
4186	.522	5060	.515
5540	.512	3 066	.520
5053	.534	4190	.500
4069	.450	5241	.634
5037	.478		. 565
5059	.444	4064	.500
5056	.512	5057	.518
5055	.488	5029	.525
3067	.442	5181	.550
5039	.504	5041	. 492
5260	.446	5040	.512
4070	.556	\$259	.564
5038		4063	.504
4189	.420	5043	.560
4103	.545	4065	.532

GAGE SENSITIVITY TO ABSORBED HEAT FLUX (DATA CORRECTED TO ABSORPTIVITY = 1.00)

C,	(3	ADSORTIVE 1.00)	•
C ,	SENSITIVITY	C	SENSITIVITY
GAGE No.	mv/Btu/ft ² sec	GAGE No.	mv/Btu/ft ² sec
			1177 Dea7 2 C 3C(
5062	.528	5044	.598
5061	.476	5054	.497
5035	.588	3203	.544
5032	.631	4071	
5036	.515	5058	.464
3207	.551		.501
. 88	.637	5242	.526
5042	.567	4191	.541
3243	.425	3068	.466
4186		4187	.531
5540	.538	5060	.536
	.528	3066	.515
5053	.551	4190	.654
4069	.464	5241	.582
5037	.493	4064	.515
5059	.458	5057	.534
5056	.528	5029	.541
5055	.503	5181	
3057	.456	5041	.567
50 59	.520	5040	.505
5260	.460	5259	.528
4070	.573		.581
5038	.433	4063	.520
4189	.562	5043	.577
4102	1302	4065	.548

TABLE VI

SCHMIDT-BOELTER GAUGE HEATING DATA

GAGE - 3066 X/L=0.8460 PHI= 48.000 NRUN=106

_							
RUN MACH ALPHA BETA	HIHU•TH TUR	AG HIHUT	S HRTT/HR	HU/HR H	R PT	TT	RE/FT
1 3.01 0.0 0.0	0 4142 0.8	700 0.476	1 0.0384	0.0927 0.00288		675.67	3783900
2 3.01 0.0 0.0	0.3883 0.8	700 0.446	9 0.0360	0.0927 0.05284		677 67	3767200
4 2 24 2 40 -0.60	0.8178 Q.8	700 0.840	0.1270	Q. 1563 Q. 05800		637.67	4209300
5 2 24 2 60 Q 80	0.6827 0.8	700 Q.784°	7 0 1065	0.1960 0.05785		644.67	4099100
6 2 24 1 80 =0.70	1.0744 0.8			O. 1533 O. 05798		648 67	4073800
7 2 24 0 60 -0.20	1.0878 0.8	700 1.250		0.1447 ().05808		649.67	4077600
8 2.90 3.20 -0.60	0.4761 0.8			0.1380 0.05642		649.67	4048600.
9 2.50 2.80 0.80	0.2542 0.8			0.1368 0.05690		649 67	4060500.
10 2 50 1 60 -0.70	0.7100 0.8			0.1324 0.05630			
11 2 50 1 50 0.20	0.3338 0.8			0.1321 0.08630		649.67	4031000.
12 2.75 3.80 -0.60	0.1500 0.8					648.67	4042600.
13 2 76 3 60 1 30	0.2240 0.8			0.1420 0.05590		650.67	4211400.
14 2 76 0 90 -0 80	0.5521 0.8			0.1420 0.05557		650.67	4172900.
15 2 76 0 20 0 10				0.1094 0.05563		662.67	4159500.
16 3.01 0.0 0.0			_	0.1094 0.05571		651.67	4181900.
17 3 02 4 50 -0 70	1.1629 0.8	2 1		0.0921 0.05288		674.G7	3792900.
	0.6304 0.8		_	0.1112 0.05532		721.67	3686600.
	0.2005 0.8			0.1117 0.05592	_	721.67	3767500.
19 3.02 1.60 -0.70	0.8691 0.8			0.1001 0.05551		723.67	3694700.
20 3.02 0.20 -0.10	1.1072 0.8			0.0933 0.05553		722.67	3706100.
21 3.02 0.0 3.00	1.0943 0.8			0.0933 0.05554		721.67	3716800.
22 3.02 0.0 -3.00	0.7824 0.8			0.0933 0.08548	36.89	721.67	3708300.
23 3 02 5.00 0.0	0.2678 0.8	700 0.307	B 0.0304	0.1135 0.05557	6 37.01	721.67	3720800.
24 3.02 5.00 3.00	0.2881 O.B	700 0.331	1 0.0327	0.1135 0.05559	8 37.04	721.67	3723800.
25 3.02 5.00 -3.00	0.7833 0.8	700 0.900	0.0889	0.1135 0.05553		721.67	371570Ó.
26 3.24 4.40 -0.60	0.6857 0.8	700 0.788	2 0.0696	0.1015 0.08597		726.67	3974400
27 3.24 5.20 1.70	0.2814 0.8	700 0.323	4 0.0296	0.1052 0.05601		725.67	3990400
28 3.24 1.50 -0.70	0.8947 0.8			0.0902 0.05603		725.67	3992700
29 3 24 0 30 0 0	1.1107 0.8			0.0840 0.05588		726.67	3962100.
30 3.50 4.50 -0.40	0.7572 0.8			0.0935 0.05540		727.67	
31 3.50 5.30 1.50	J.6848 O.8			0.0974 0.05542			4209800.
32 3.50 1.40 0.20				0.0813 0.05543		730.67	4180900.
33 3 50 0 40 -0 30	1.2474 0.8			0.0756 0.05554		729.67	4192000.
34 3.75 0.30 0.0	1.7636 0.8					728.67	4219900.
35 3.77 1.50 -0.50				0.0664 0.05309		739.67	4058400.
36 3.77 3.90 0.70	0.9185 0.8			0.0721 0.05258		739.67	4012800.
37 3.77 5.00 0.10				0.0810 0.05255		739.67	4009300.
				0.0861 0.05257		738.67	4021600.
				0.0591 0.05139		742.67	4122800.
	1.3553 0.8			0.0591 0.05136		738.67	4159900.
	0.3061 0.8		_ : : : : : : : : : : : : : : : : : : :	0.1137 0.05587		722.67	3741700.
41 3.01 5.00 3.00				0.1137 0.05589		724.67	3725100.
42 3.01 5.00 -3.00				0.1137 0.05684		724.67	3718800.
43 3.01 5.00 6.00				0.1136 0.05575	2 36.89	724.67	3706300.
44 3.01 5.00 -6.00	0.8222 0.8			0.1136 0.05574	4 36.88	724.67	3705200.
45 3.01 0.0 0.0	1.1403 0.8			0.0934 0.05583	8 37.00	724.67	3717700.
46 3.01 0.0 3.00	1.1681 0.8	700 1.342	6 0.1091	0.0934 0.05578	8 36.93	724.67	3711100.
47 3.01 0.0 -3.00	0.7955 0.8	700 Q.914	4 0.0743	0.0934 0.05579	4 36.96	723.67	3721000.
48 3.01 0.0 6.00	0.4711 0.8	700 0.541	5 0.0440	0.0934 0.05580		723.67	3722500.
49 3.01 0.0 -6.00	1.0396 0.8	700 1.194	9 0.0971	0.0934 0.05596		721.67	3762900
50 3.01 -5.00 0.0	1.2013 0.8			0.0934 0.05579		722.67	3730600.
51 3.01 -5.00 3.00				0.0934 0.05571		722.67	
52 3.01 -5.00 -3.00	0.7002 d.8			0.0934 0.05573		721.67	3719900. 373 95 00.
53 3.01 -5.00 6.00				0.0934 0.05571		720.67	3738500.
54 3.01 -5.00 -6.00				0.0934 0.05578			
55 3.01 0.0 -3.00				0.0934 0.05587		720.67	3747400.
56 3.01 0.0 0.0	1.1413 0.8			0.0934 0.09587		722.67	3741000
57 3.25 0.0 0.0	1.2083 0.8	700 1.386				725.67	3712900.
58 3.25 0.0 -3.00				0.0840 0.08567		731.67	3894300.
59 3.25 5.00 0.0	1.0326 0.8			0.0840 0.05586		734.67	3892000.
60 3.51 0.0 0.0				0.1043 0.08584	_	733.67	3899700
61 3.51 1.40 -0.20	1.5345 0.8 0.8656 0.8			0.0754 0.05538		740.67	4084500.
				0.0811 0.05544		741.67	4082200.
				0.0754 0.05533		738.67	4097500
	0.8860 0.8			0.0956 0.05535		736.67	4120500.
	1.4744 0.8			0.0664 0.05291		744.67	4000200.
65 3.76 0.0 -3.00	-			0.0664 0.05294		746.67	398470 0.
66 3.76 5.00 0.0	1.0801 0.8			0.0861 0.05294	7 61.94	748.67	3965800.
67 3.76 1.50 -0.50				0.0721 0.05283		740.67	4027900.
68 4.04 0.0 0.0	1.7157 O.B			0.0591 0.05099	9 72.84	742.67	4086300.
69 4.04 E.GO O.O	1.0982 0.8			0.0784 0.05091		738.67	4113400.
70 4 04 5 00 3.00		700 1.375	5 0.0937	0.0783 0.05094		737.67	4129500
71 4.04 5.63 -3.00		700 1.040	B 0.0709	0 13 0.05092		738.67	4114900.
72 4 04 5 00 6.00		700 0.476		0.(.2 0.05095		738.G7	4120600
73 4.04 8.00 -6.00				0.0782 0.08092		739.67	4108000
	_	· · -					4 (40000)

TABLE VI (Continued)

```
74 4.04
          0.0
                 3.00 O.4788
                                 0.8700 0,5503 0.0283
  75 4.04
                                                          0.0591 0.050994
           0.0
                                                                            72.80 740.67
                 6,00 0.8274
                                 0 8700
                                                                                            4106000.
                                         0.9510
                                                 0.0489
                                                          0.0591 0.050966
 76 4.04
           0.0
                ~G . QQ
                                                                             72 86
                        1.6108
                                                                                    739.67
                                 0.8700
                                         1,8515
                                                 0.0952
                                                          0.0591 0.050957
 77 4.04
           \Omega \cdot \Omega
                -3.00
                                                                             72.82
                                                                                    739.67
                        1.2893
                                 0.8700
                                         1.4820
 78 4.04 -5 00
                                                 0.0762
                                                          0.0691 0.050963
                                                                             72.84
                00
                                                                                    739.67
                        1.8274
                                 0.8700
                                         2.1005
                                                 0 1080
                                                          0.0591 0.050947
 79 4.04 -5 QO
                 3.00
                                                                             72,80
                                0.8700
                                                                                    739.67
                        1,6103
                                         2.1957
0.7487
                                                                                             4108600
                                                 0.1128
                                                          0.0591 0.050973
 80 4.04 -5 00 -3.00
                                                                             72.87
                       0.6514
                                                                                    739.67
                                0.8700
                                                                                             4112800.
                                                 0.0385
                                                          0.0591 0.050966
 81 4.04 -B.00
                6.00
                                                                             72.85
                                                                                    739.67
                        2.1810
                                0.8700
                                                                                             4111700
                                         2.5069
                                                 0.1289
                                                          0.0591 0.051001
 82 4.04 -5.00
                · 6 . 00
                                                                             72.85
                        1.2741
                                                                                    739.67
                                0.8700
                                                                                             4117400
                                         1.4645
                                                 0.0753
                                                          0.0581 0.050857
 83 4.04 0.0
                 0.0
                                                                            72.82
                                                                                    739 67
                        1.5127
                                0.8700
                                                                                             4110200
                                         1,7387
                                                 0.0894
                                                          0.0591 0.050972
 84 4.04
          O.O
                                                                            72.83
                 0.0
                        1.4264
                                                                                    740.67
                                                                                             4102400
                                0.8700
                                         1.6395
                                                 0.0843
                                                          0.0581 0.050875
 85 3.01
          0.0
                 0.0
                        0.6689
                                                                            72.81
                                                                                    741.67
                                                                                             40925QO
                                0.8700
                                         0.7689
                                                 0.0713
 86 4.00
                                                          0.1066 0.068521
          0.0
                 0.0
                                                                            52.01
                        1.4863
                                                                                    683.67
                                0.8700
                                         1.7084
                                                 0.1030
                                                                                             9684000
                                                          0.0693 0.089275 174.52
 87 4.00
          0.0
                 3.00
                        1.0990
                                                                                   1438.70
                                0.8700
                                         2.1828
                                                                                             3643600
                                                 0.1316
                                                          0.0693 0.089267 174.48
 88 4.CQ
          0.0
                -3.00
                       0.7576
                                                                                   1438.70
                                0.8700
                                                                                             3642800
                                         0.8708
                                                 0.0525
                                                          0.0693 0.089307 174 98
 89 4.00
          5.00
                 0.0
                        1.0731
                                                                                   1440.70
                                0.8700
                                                                                             3637100
                                         1,2334
                                                 0.0984
 90 4.00
                                                          0.0917 0.089162 174.11
          9.00
                 3.00
                                                                                   1437.70
                       1.5741
                                0.8700
                                                                                             3639000.
                                         1.8093
                                                          0.0918 0.089322
                                                 0.1445
91 4.00
          5.00
                                                                           174.70 1438.70
                - 3 . OO
                       0.4924
                                0.8700
                                                                                            3647500.
                                         0.5660
                                                          0.0918 0.089307
                                                 0.0452
92 4.00 -5.00
                                                                           174 61 1439 70
                0.0
                        1.7168
                                0.8700
                                                          0.0682 0.089259 174.42 1439.70
                                                                                            3641600.
                                         1.9733
                                                 0.1188
93 4.00 -5.00
                 3.00
                       2.2298
                                0.8700
                                                         0.0692 0.089244 174 30 1441 70
0.0692 0.089260 174 33 1442 70
0.0692 0.089292 174 48 1441 70
0.0332 0.030223 20.16 1428 70
                                                                                            3637700
                                         2.5630
                                                 0.1543
94 4.00 -5.00
                -3.00
                       1.2197
                                0.8700
                                                                                            3627400
                                         1.4020
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GAGE: 3067 X/L=0.9470 PHI: 35.000 NRUN=106

40.000

i [•

RUN MACH ALPHA SETA HIHU+TH TUR FAC HIHU+TS HRTT/HR 1 3.01 HU/HR HR 0.0 0.0 1.2524 0.8700 1.4395 RE/FT 0.1161 0.0927 0.052894 2 3.01 675.67 0.0 0.0 34.04 1.0820 3783900 0.8700 1.2437 0.1003 0.0927 0.052848 4 2.24 2.40 -0.60 1.2000 33.94 677.67 0.8700 3757200. 1.3793 5 2.24 0.1730 0.1600 0.058067 2.60 0.80 0.9200 23.14 637.67 0.8700 4209300. 1.0575 0.1600 0.057850 0.1331 6 2.24 1.80 -0.70 22.88 0.8400 644.67 0.8700 0.9655 4099100. 0.1600 0.057984 0.1213 2.24 0.60 -0.20 22.93 648.67 1.G200 0.8700 4073900. 1.8621 0.2347 0.1600 0.058088 8 2.50 3.20 -0.60 23.00 649.67 0.1291 0.8700 0.1484 0.1521 4077600 0.1247 0.056426 2.80 0.80 1.60 -0.70 0.0161 9 2.50 26.13 0.1323 649.67 0.8700 4048600 0.1247 0.056509 0.1247 0.056303 0.0165 10 2.50 26.21 0.7698 649.67 0.8700 4060500. 0.8848 0.0960 11 2.50 1.50 0.20 26.01 0.4531 649.67 0.8700 4031000 0.5208 0.0565 3.80 -0.60 12 2.75. 0.1247 0.056307 26.03 0.5300 0.8700 648.67 4042600 0.6092 0.0577 13 2.76 0.1270 0.055904 3.60 1.30 0.8400 0.8700 31.15 650.67 0.9655 4211400 0.0915 14 2.76 0.90 -0.80 0.1270 0.055575 31.03 1.5242 650.67 4172900 0.8700 1.7520 0.1666 15 2.76 0.1093 0.055639 31.07 0.20 0.10 652.67 1.2004 4159500. 0.8700 1.3798 0.1093 0.055712 16 3.01 0.1312 0.0 651.67 0.0 0.9468 31.17 0.8700 4181900 1.0883 0.0921 0.052886 17 3.02 0.0872 4.50 -0.70 34.04 674.67 0.7588 0.8700 3792900 0.8722 0.0933 0.055320 0.0708 18 3.02 4.60 1.30 0.4180 36.67 721.67 0.8700 0.4805 3686600 0.0390 0.0933 0.055824 19 3.02 1.60 -0.70 37.48 721.67 1.1147 0.8700 3767500 1.2813 0.1040 0.20 -0.10 0.0933 0.055518-20 3.02 36.90 1.1372 723.67 3694700 0.8700 1.3071 0.1061 0.0933 0.055535 21 3.02 36.94 0.8467 O.8700 722.67 3706100 0.9732 0.0790 22 3.02 0.0933 0.055546 0.0 -3.00 36.97 1.0137 0.8700 721.67 3716800 1.1652 0.1035 0.1021 0.055483 0.0933 0.055576 23 3.02 ö.00 0.0 0.3012 36.89 721.67 3708300 0.8700 0.3462 0.0281 24 3.02 5.00 3.00 0.1994 37.01 721.67 0.8700 3720800 0.2292 0.0186 25 3.02 5.00 -3.00 0.0933 0.055898 37.04 721.67 1.0429 0.8700 3723800 1.1987 0.0973 26 3.24 0.0933 0.055538 4.40 -0.60 36.96 0.9273 0.8700 721.67 3715700 1.0659 0.0778 27 3.24 0.0838 0.055976 5.20 1.70 46.05 726.67 0.3897 0.8700 3974400 0.4479 0.0839 0.056019 28 3.24 0.0327 1.50 -0.70 45.15 725.67 1.0536 0.8700 3990400. 1.2110 0.0884 0.0839 0.056035 29 3.24 0.30 0.0 45.17 725.67 1.3480 0.8700 1.5494 3992700 0.0839 0.055889 0.1131 30 3.50 4.50 -0.40 0.9643 44.91 726.67 0.8700 1.1084 3962100 0.0729 0.0756 0.055407 31 3.50 5.30 1.50 54.99 0.5180 0.8700 727.67 4209800 1.0552 0.0756 0.055427 0.0694 32 3.50 1.40 0.20 54.95 1.5688 0.8700 730.67 4180900 1.8032 0.1186 0.0756 0.055430 33 3.50 0.40 -0.30 54.98 1.3069 0.8700 729.67 4192000. 1.5022 0.0988 0.0756 0.055543 34 3.75 0.30 0.0 55.23 728.67 1.7349 4219900 0.8700 1.9941 0.1152 35 3.77 0.0664 0.053050 1.50 -0.50 61.92 1,1596 738.67 4058400. 1.3329 0.8700 0.0770 36 0.0664 0.052582 3.77 3.90 0.70 61.87 739.67 1.3690 0.8700 4012800. 1.573G 0.0909 0.0664 0.052559 37 3.77 5.00 0.10 61.81 739.67 1.3675 0.8700 4009300. 1.571A 0.0908 0.0664 0.052574 38 4.02 0.70 -0.60 61.88 1.2504 0.8700 738.67 4021600. 1.4372 0.0739 0.0591 0.051391 39 4.02 0.0 0.0 72.74 1.4433 742.67 0.8700 4122800. 1.6590 0.0853 0.0591 0.051364 40 3.01 5.00 0.0 0.3105 72.81 738.67 0.8700 4159900 0.3569 0.0290 0.0934 0.055879 37.09 722.67 3741700

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TABLE VI (Continued)

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41 3.01
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 68
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 62 3.51
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 64 3.76
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 65
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 66 3.76
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                                                          0.0562 0.047013
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101 4.00
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                        1.2282
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                                         1.4117
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                                                          0.0561 0.047091
                                                                            60.21
                                                                                    736.67
                                                                                             3484200.
102 4.00 -5.00
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                                                          0.0673 0.047126
                                                                            60.26
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103 4.00 -5.00
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104 4.00
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                                         0.6777
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                                                          0.0770 0.047128
                                                                            60.33
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105 4 00
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                        1.2424
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                                                          0.0531 0.047081
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          0.70 -0.60
106 4.00
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                                         1.0325
                                                 0.0636
                                                          0.0708 0.066420
                                                                           119.84
                                                                                    737.67
                                                                                             6920200
                       0.8814
107 4.00
          0.70 -0.60
                                0.8700
                                         1.0131
                                                 0.0624
                                                          0.0708 0.066764 120.72
                                                                                    738.67
                                                                                             6974400
GAGE= 3068 X/L=0.9460 PHI= 42.000 NRUN=106
                                                           HU/HR
                                                                        HR
                                                                               DT
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(i

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RUN MACH ALPHA
                BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                                                              RE/FT
   3.01
                       0.1553
          0.0
                0.0
                               0.8700
                                        0.1785
                                                         0.0927 0.052894
                                                0.0144
                                                                           34.04
                                                                                  675.67
                                                                                           3783900.
   3.01
          0.0
                0.0
                       0.1424
                               0.8700
                                        0.1637
                                                0.0132
                                                         0.0927 0.052848
                                                                           33.94
                                                                                  677.67
                                                                                           3757200
   2.24
          2.40 -0.60
                       0.5923
                               0.8700
                                       0.6808
                                                0.0857
                                                         0.1447 0.058067
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                                                                                  637.67
                                                                                           4209300
 5 2.24
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                                                0.0650
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                                                                                  644.67
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   2.24
          1.80 -0.70
                       0.7961
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                                       0.9151
                                                0.1152
                                                         0.1447 0.057984
                                                                           22.93
                                                                                  648.67
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          0.60
               -0.20
                       0.8487
                               0.8700
                                       0.9755
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                                                         0.1447 0.058088
                                                                           23.00
                                                                                  649.67
                                                                                           4077600
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Real Property and the second

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8 2.50 3.20 -0.60 0.2735 0.8700 0.3144 0.0341 0.1247 0.056426 26.13 648.67
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 9 2 50
          2.80 0.80
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                                 0.8700 0.0249 0.0027
                                          O 0249 O 0027 O 1247 O 056509
O 6056 O 0657 O 1247 O 056303
                                                                                         649.67
                                                                                 26.21
                                                                                                  4060500
10 2.50
         1.60 -0.70
                        0.5269 0.8700
                                                                                 26.01
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11 2.50
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                                 0.8700 0.2101
                                                    0.0228 0.1247 0.056307
                                                                                 26.03
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12 2.75
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                                                    0.0069 0.1270 0.055904
                                          0.0690
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13 2 76
          3.60 1.30 0.0900 0.8700 0.1034 0.0104 0.1270 0.058675
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14 2.76
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15 2.76
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36 3.77
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38 4 02
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39 4 02
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41 3.01
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42 3.01
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43 3.01
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44 3.01
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45 3.01 0.0 0.0
46 3.01 0.0 3.00
47 3.01 0.0 -3.00
48 3.01 0.0 -6.00
49 3.01 0.0 -6.00
50 3.01 -5.00 0.0
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51 3.01 -5.00 3.00
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52 3.01 -5.00 -3.00
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53 3.01 -5.00 6.00
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54 3.01 -5.00 -6.00
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55 3.01 0.0 -3.00
56 3.01 0.0 0.0
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56 3.01
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70 4.04
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79 4.04 -5.00
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80 4.04 -5.00 -3.00
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81 4.04 -5.00 G.00
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 86 4.00
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                                               0.0868
                                                        0.0870 0.089275 174.52 1438.70
 87 4.00
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                               G.8700
                                        1.8586
                                                0.1121
                                                        0.0870 0.069267 174.48 1438.70
 88 4.00
          Q.Q
               -3.00
                       0.7200
                               0.8700
                                       0.8276
                                                        0.0960 0 089307 174.58 1440.70
                                               0.0547
                                                                                          3637100.
 89 4.00
          5.00
               Q.Q
                               0.8700
                       1.2000
                                       1.3793
                                                0.0830
                                                        0.0870 0.089162 174,11 1437 70
                                                                                          3639000.
 90 4.00
          5.00
                3.00
                       1.7000
                               0.8700
                                       1.9540
                                                0.1180
                                                        0.0870 0.089322 174.70 1438 70
                                                                                          3647500.
 91 4.00 5 00 -3 00
                      0.6800
                               0.8700
                                                        0.0870 0.089307 174.61 1439 70
                                       0.7816
                                                0.0472
                                                                                          3641600
 92 4.00 -5.00
               0.0
                       1.1200
                               0.8700
                                       1.2874
                                                        0.1100 0.089259 174.42 1439.70
                                                0.0975
                                                                                          3637700.
 93 4.00 -5.00
                3.00
                       1.5800
                               0.8700
                                       1.8161
                                                        0.0990 0.089244 174.30 1441.70
                                                0.1245
                                                                                          3627400.
 94 4 00 -5.00 -3.00
                               0.8700
                       0.7900
                                       0.9080
                                               0.0764
                                                        0.1240 0.089260 174.33 1442.70
                                                                                          3624100
 95 4.00 0.0
                0.0
                       1.2500
                               0.8700
                                       1.4368
                                               0.0867
                                                        0.0870 0.089292 174.48
                                                                                1441.70
                                                                                          3631300.
 96 4.00
          0.70 -0.60
                       0.7600
                               0.8700
                                       0.8736
                                                0.0252
                                                        0.0420 0.030223
                                                                          20.16
                                                                                 1428.70
                                                                                           423840
 97 4.00
          0.0
                0.0
                       1.2300
                               0.8700
                                       1.4138
                                                0.0821
                                                        0.0840 0.078417 140.45
                                                                                 1245.70
                                                                                          3651900
 98 4.00
          0.0
                               0.8700
                0.0
                       1.1610
                                       1.3345
                                                0.0764
                                                        0.0820 0.070603 120.00
                                                                                 1051.70
                                                                                          4033000.
 99 4.00
          0.0
                0.0
                       1.2030
                               0.8700
                                       1.3828
                                                0.0761
                                                        0.0790 0.064521 102.46
                                                                                 982.67
                                                                                          3816300.
100 4.00
          0.0
                0.0
                       1.2440
                               0.8700
                                       1.4299
                                                0.0699
                                                        0.0700 0.047013
                                                                          60.24
                                                                                 728.67
                                                                                          3544500.
101 4.00
          5.00
                                                        0.0690 0.047091
                0.0
                       1.4800
                               0.8700
                                        1.7011
                                                0.0829
                                                                          60.21
                                                                                 736.67
                                                                                          3484200
102 4.00 -5.00
                0.0
                       1.3900
                               0.8700
                                       1.5977
                                                0.0980
                                                        0.0860 0.047126
                                                                          60.26
                                                                                 737.67
                                                                                          3480500.
103 4.00 -5.00
                3.00
                       1.5400
                               0.8700
                                       1.7701
                                                0.0982
                                                        0.0780 0.047199
                                                                          60.45
                                                                                 737.67
                                                                                          3491300.
104 4.00 -5.00
               -3.00
                       0.5800
                               0.8700
                                       0.6667
                                                0.0451
                                                        0.0970 0.047128
                                                                          60.33
                                                                                 735.67
                                                                                          3498600.
105 4.00
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                0.0
                       1.2310
                               0.8700
                                       1.4149
                                                0.0691 .
                                                        0.0700 0.047081
                                                                          60.24
                                                                                 734.67
                                                                                          3500500.
106 4.00
          0.70 -0.60
                      0.8600
                               0.8700
                                       0.9885
                                                0.0609
                                                        0.0880 0.066420 119.54 .
                                                                                 737.67
                                                                                          6920200.
107 4.00
         0.70 -0.60
                      0.8100
                               0.8700
                                       0.9310
                                                0.0571
                                                        0.0880 0.066764 120.72
                                                                                 738.67
                                                                                          6974400.
GAGE = 3203 X/L=0.7570 PHI = 50.000 NRUN= 94
RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                         HU/HR
                                                                             PΤ
                                                                                     TT
                                                                                             RE/FT
  1 3.01 0.0
                0.0
                      7.9250
                               0.8700
                                      9.1092
                                               1.5747
                                                        0.1987 0.052894
                                                                          34.04
                                                                                 675.67
                                                                                          3783900
  2 3.01
          0.0
                0.0
                       7.3533
                               0.8700
                                       8.4521
                                                1.4611
                                                        0.1987 0.052848
                                                                          33.94
                                                                                 677.67
                                                                                          3757200.
  4 2.24
          2.40 -0.60
                      4.9265
                               0.8700
                                       5.6626
                                                1.1390
                                                        0.2312 0.058067
                                                                          23.14
                                                                                 637.67
                                                                                          4209300.
  5 2.24
          2.60 0.80
                       4.4436
                               0.8700
                                       5.1076
                                                1.0318
                                                        0.2322 0.057850
                                                                          22.88
                                                                                 644.67
                                                                                          4099100.
  6 2.24
          1.80 -0.70
                      5.3574
                               0.8700
                                       6.1579
                                                1.2547
                                                        0.2342 0.057984
                                                                          22.93
                                                                                 648.67
                                                                                          4073900.
    2.24
          0.60 -0.20
                      5.5880
                               0.8700
                                       6.4230
                                                1.3467
                                                        0.2410 0.058088
                                                                          23.00
                                                                                 649.67
                                                                                          4077600.
  8 2.50
          3.20 -0.60
                      6.0600
                               0.8700
                                       6.9655
                                                1.2732
                                                        0.2101 0.056426
                                                                          26.13
                                                                                 649.67
                                                                                          4048600.
  9 2 50
          2.80 0.80
                       5.2116
                               0.8700
                                       5.9903
                                                1.1184
                                                        0.2146 0.056509
                                                                          26.21
                                                                                 649.67
                                                                                          4060500.
 10 2.50
          1.60 -0.70
                       5.1475
                               0.8700
                                       5.9167
                                                1.1273
                                                        0.2190 0.056303
                                                                          26.01
                                                                                 649.67
                                                                                          4031000.
 11 2.50
                       5.6738
          1.50
               0.20
                               0.8700
                                       6.5216
                                               1.2539
                                                        0.2210 0.056307
                                                                          26.03
                                                                                 648.67
                                                                                          4042600
 12 2.75
          3.80 -0.60
                      6.5692
                               0.8700
                                       7.5508
                                               1.2718
                                                        0.1936 0.055904
                                                                          31.15
                                                                                 650.67
                                                                                          4211400.
                      6.1858
 13 2.76
          3.60
               1.30
                               0.8700
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                                                1.2254
                                                        0.1981 0.056575
                                                                          31.03
                                                                                 650.67
                                                                                          4172900.
          0.90 -0.80
 14 2.76
                      7.0555
                               0.8700
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                                                1.4873
                                                        0.2108 0.055639
                                                                          31.07
                                                                                 652.67
                                                                                          4159500.
 15 2.76
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                               0.8700
                                                        0.2163 0.055712
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                                                1.4994
                                                                          31.17
                                                                                 651.67
                                                                                          4181900
 16 3.01
          0.0
                0.0
                       7.7100
                               0.8700
                                       8.8621
                                                1.5250
                                                        0.2430 0.052886
                                                                          34.04
                                                                                 674.67
                                                                                          3732900.
 17 3.02
          4.50 -0.70
                      6.2800
                               0.8700
                                       7.2184
                                                        0.2090 0.055320
                                                1.0790
                                                                          36.67
                                                                                 721.67
                                                                                          3686600.
 18 3.02
          4.60
               1.30
                      5.8200
                               0.8700
                                       6.6897
                                                1.0180
                                                        0.2120 0.055924
                                                                          37.48
                                                                                 721.67
                                                                                          3767500
 19 3.02
          1.60 -0.70
                      5.3100
                               0.8700
                                       6.1034
                                                1.0070
                                                        0.2320 0.055518
                                                                                 723.67
                                                                          36.90
                                                                                          3694700.
          0.20 -0.10
                               0.8700
 20 3.02
                      6.7300
                                       7.7356
                                                1.3400
                                                        0.2450 0.055535
                                                                          36.94
                                                                                 722.67
                                                                                          3706100.
          0.0 3.00
 21 3.02
                      6.2100
                               0.8700
                                       7.1379
                                                1.2740
                                                        0.2540 0.055546
                                                                          36.97
                                                                                          3716800.
                                                                                 721.67
 22 3.02
          0.0
              -3.00
                      6.,8100
                               0.8700
                                       7.8276
                                                1.3290
                                                        0.2400 0.055483
                                                                          36.89
                                                                                 721.67
                                                                                          3708300.
          5.00 0.0
 23 3.02
                      5.3100
                               0.8700
                                       6.1034
                                                0.9019
                                                        0.2060 0.055576
                                                                          37.01
                                                                                 721.67
                                                                                          3720800.
24 3.02
25 3.02
          5.00
               3.00
                      3.4200
                               0.8700
                                       3.9310
                                                0.5983
                                                        0.2120 0.055598
                                                                          37.04
                                                                                 721.67
                                                                                          3723800.
          5.00 -3.00
                      7.0200
                               0.8700
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                                                1.1560
                                                        0.1990 0.055538
                                                                          36.96
                                                                                 721.67
                                                                                          3715700.
          4.40 -0.60
 26 3.24
                      6.4900
                               0.8700
                                       7.4598
                                                1.0700
                                                        0.2030 0.055976
                                                                          45.05
                                                                                 726.67
                                                                                          3974400.
   3.24
          5.20 1.70
                      4.6500
                               0.8700
                                       5.3448
                                               0.7619
                                                        0.2020 0.056019
                                                                          45.15
                                                                                 725.67
                                                                                          3990400.
 28 3.24
          1.50 -0.70
                      5.8700
                               0.8700
                                       6.7471
                                                1.0750
                                                        0.2290 0.056035
                                                                          45.17
                                                                                 725.67
                                                                                          3992700.
 29 3.24
          0.30
               0.0
                       6.0560
                               0.8700
                                       6.9609
                                                1.1610
                                                        0.2410 0.055889
                                                                          44.91
                                                                                 726.67
                                                                                          3962100.
 30 3.50
          4.50 -0.40
                      8.0100
                               0.8700
                                       9.2069
                                               1.2600
                                                        0.1970 0.055407
                                                                          54.99
                                                                                 727.67
                                                                                          4209800
31 3.50
          5.30
               1.50
                      5.4700
                               0.8700
                                       6.2874
                                               0.8518
                                                        0.1950 0.055427
                                                                          54.95
                                                                                 730.67
                                                                                          4180900
32 3.50
          1.40
               0.20
                      5.6900
                               0.8700
                                       6.5402
                                                1.0170
                                                        0.2270 0.055430
                                                                          54.98
                                                                                 729.67
                                                                                          4192000.
 33 3.50
          0.40 -0.30
                      6.3000
                               0.8700
                                       7.2414
                                                1.1590
                                                        0.2350 0.055543
                                                                          55.23
                                                                                 728.67
                                                                                          4219900.
34 3.75
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                               0.8700
                                       5.1034
                                               0.7727
                                                        0.2260 0.053050
                                                                          61.92
                                                                                 739.67
                                                                                          4058400.
 35 3.77
          1.50 -0.50
                      6.8700
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                                       7.8966
                                                1.1370
                                                        0.2140 0.052582
                                                                          61.87
                                                                                 739.67
                                                                                          4012800
36 3.77
          3.90
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                               0.8700
                                       8.6782
                                                1.1510
                                                        0.1950 0.052559
                                                                          61.81
                                                                                 739.67
                                                                                          4009300.
 37 3.77
                               0.8700
          5.00
               0.10
                      7.8600
                                       9.0345
                                                1.1340
                                                        0.1830 0.052574
                                                                          61.88
                                                                                 738.67
                                                                                          4021600
 38 4.02
          0.70 -0.60
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                               0.8700
                                       8.2989
                                               1.1720
                                                        0.2140 0.051391
                                                                          72.74
                                                                                 742.67
                                                                                          4122800
39 4.02
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40 3.01
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                               0.8700
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                                               0.8944
                                                        0.1703 0.055879
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                                                                                 722.67
                                                                                          3741700.
41 3.01
          5.00
               3.00
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                                               0.5921
                                                        0.1754 0.055893
                                                                          37.07
                                                                                 724.67
                                                                                          3725100.
42 3.01
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                               0.8700
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                                                1.2369
                                                        0.1650 0.055846
                                                                          37.01
                                                                                 724.67
                                                                                          3718800.
                      2.6249
 43 3.01
          5.00
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                               0.8700
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                                                        0.1802 0.055752
                                                                          36.89
                                                                                 724.67
                                                                                          3706300.
 44 3.01
          5.00 -6.00
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                                       2.9475
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                                                                          36.88
                                                                                 724.67
                                                                                          3705200
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 45 3.01
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                                                1.5806
                                                        0.2007 0.055838
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                                                                                 724.67
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 46 3.01
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                      7.2613
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                                                        0.2055 0.055788
                                       8.3463
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                                                                          36.93
                                                                                 724.67
                                                                                          3711100.
   3.01
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               -3.00
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                                                                                 723.67
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 48 3.01
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                                       9.6364
                                                1.7589
                                                        0.2098 0.085805
                                                                          36.97
                                                                                 723.67
                                                                                          3722500.
 49 3.01
         0.0
                      6.1901
               -6.00
                               0.8700
                                       7.1151
                                                1. 1755
                                                        O. 1899 O. 055968
                                                                          37.23
                                                                                 721.67
                                                                                          3762900.
50 3.01 -5.00
               0.0
                       7.3734
                               0.8700
                                       8.4752
                                                1.6745
                                                        0.2271 0.055797
                                                                          36.98
                                                                                 722.67
                                                                                          3730600.
   3.01 -5.00
                3.00
                      G.7515
                               0.8700
                                       7.7603
                                                1.5596
                                                        0.2310 0.055717
                                                                          36.BB
                                                                                 722.67
                                                                                          37 19900.
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一种联系。46 个分类。42.

14 2.76

15 2.76

17 3.02

20 3.02

21 3.02

22 3.02

24 3.02

26 3.24

30 3.50

3.24

3.24

16 3.01

18 3.02

19 3.02

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28

29 3.24 0.90 -0.80

0.20 0.10

4.50 -0.70

1.60 -0.70

0.20 -0.10

0.0 -3.00

5.00 -3.00

4.40 -0.60

1.50 -0.70

0.0

1.30

3.00

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3.00

1.70

0.0

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4.60

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0.30

3.4973 3.3465

4.2169

3.8394

4.3219

3.8005

3.7949

4.4515

3.2489

4.0048

4.6542

3.8029

4.1841

4.5586

4.1040

4.0546

4.5117

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4.0199

3.8466

4.8470

4.4131

4.9677

4.3684

4.3620

5.1167

3.7344

4.6032

5.3497

4.3711

4.8093

5.2398

4.7172

4.6605

5.1859

0 5148 0.4926

0.5250

0.4830

0.5437

0.4781

0.4774

0.5600

0.4477

0.5038

0.8855

0.4784

0.4749

0.5174

0.4658

0.4602

0.4620

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52 3.01 -5.00 -3.00 6.4266 0.8700 7.3869
  53 3.01 -5.00 6.00
                                                1.4312
                                                         0.2227 0.066794 97.00 721.67
                       6.0687
                                                                                           3739500.
                                0 8700
                                        6.9755
                                                 1.4219
                                                         0.2343 0.056717
  54 3.01 -5.00 -6.00
                                                                           36,91
                       2.9247
                                                                                  720.67
                                                                                           3738500
                                0.8700
                                        3.3617
                                                0.6367
                                                         0.2177 0.055783
 55 3.61
                                                                           37.00
          0.0 -3.00
                                                                                  720,67
                                                                                           3747400
                       8.6266
                                0.8700
                                        9.9156
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                                                         0 1955 0.056874
 56 3.01
                                                                           37.08
                                                                                  722.67
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                 0.0
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                                                                                           3741000
                                0.8700
                                        9.0877
                                                 1.5868
                                                         0.2007 0.055871
                                                                           37.02
 57 3.25
           0.0
                 0.0
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                       6.8904
                                                                                           3712900
                                0.8700
                                        7.9200
                                                1.3333
                                                         0.1935 0.055670
                                                                           44.83
 58 3.25
               - 3 . QO
                                                                                  731.67
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                                                                                           3894300
                                9.8700
                                        8.6833
                                                1.4210
                                                         0.1881 0.065860
                                                                           45.07
 59 3.25
           5.00 0.0
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                                                                                  734.67
                                                                                           3992000
                                0.8700
                                                0.7546
                                        5.3508
                                                         0.1621 0.055847
 60 3.51
                                                                           45.07
                                                                                  733.67
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                                                                                           3899700
                       4.4971
                                0.8700
                                        5.1691
                                                0.8387
                                                         0.1865 0.055389
 61 3.51
           1.40 -0.20
                                                                           $6.08
                                                                                  740.67
                                                                                           4084500
                       7.1748
                                0.8700
                                        8.2469
                                                1.2721.
                                                         0.1773 0.055442
 62 3.61
                                                                           55.16
                                                                                  741.67
           0.0
               ~3.00
                                                                                           4082200
                       4.1541
                                        4.7748
                                0.8700
                                                0.7519
                                                         0.1810 0.055339
 63 3.51
           5.00 0.0
                                                                           65.03
                                                                                  738.67
                                                                                           4097500
                       6.9618
                                0.8700
                                        8.0021
                                                1.0742
                                                         0.1543 0.055354
 64 3.76
                                                                           55.11
                                                                                  736.67
          0.0
                0.0
                                                                                          4120500
                       7.8010
                                0.8700
                                        8.9667
                                                1.3722
                                                         0.1759 0.052913
 65 3.76
          0.0
               -3.00
                                                                           61.97
                                                                                  744.67
                                                                                          4000200
                       3.8245
                                0.8700
                                                         0.1704 0 052942
                                        4.3960
                                                0.6517
 66 3.76
          5.00 0.0
                                                                           61.98
                                                                                  746.67
                                                                                          3984700
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GAGE = 3243 X/L=0.0 PHIR O.O NRUN= 106 RUN MACH ALPHA BETA HIHU TH TUR FAC HIHU TS HRTT/HR HU/HR RE/FT 675.67 1 3.01 0.0 0.0 1.2380 1.0000 1.2380 1.1777 0 9510 0.052894 34.04 3783900 2 3.01 0.0 1.2130 1,0000 1.1539 0.0 1.2130 0.9510 0.052848 33.84 677.67 3757200 2.40 -0.60 4 2.24 1,0687 1.1240 1.0000 1.1240 0.9510 0.058067 23.14 637.67 4209300 1.1040 1.0601 5 2.24 2.60 0.80 1.0000 1.1040 0.8510 0.057850 22.68 644.G7 4099100 1.80 -0.70 6 2.24 1.0980 1.0000 1.0980 1.0442 0.8510 0.057884 22.93 648.67 4073900 7 2.24 0.60 -0.20 1.0760 1.0000 1.0760 1.0229 0.9510 0.058088 649.67 4077600 23.00 6 2 50 3.20 -0.60 1.1040 1.0000 1.1040 1.0000 0.8510 0.056426 649.67 26.13 4048600 9 2.50 2.80 0.80 1.1730 1.0000 1.1730 1.1152 0.8510 0.056508 26.21 649.67 4060500 10 2.50 1.60 -0.70 1.1430 1,0000 1.1430 1.0872 0.8510 0.056303 26.01 649.67 4031000 11 2.50 1.50 0.20 1.1230 1.0000 1.1230 1.0684 0.8510 0.056307 648.67 26.03 4042600 1.1510 12 2.75 3.80 -0.60 1.1510 1.0947 0.9510 0.055904 1.0000 650.67 4211400 31.15 1.1890 13 2.76 3.60 1.30 1.0000 1.1890 1.1310 0.9510 0.055676 31.03 650.67 4172900 14 2.76 0 90 -0.80 1.1340 0.9510 0.055639 1.1340 1.0000 1.0781 652.67 4159500 31.07 0.20 0.10 15 2 76 0.9510 0.055712 1.1240 1.0000 1.1240 1.0689 651.67 4181900 31.17 16 3.01 1.3320 1.0000 1.3320 1.2667 0.9510 0 052886 674.67 3792900 34.04 4.50 -0.70 17 3.02 1.1930 1.1930 1.1343 0.9510 0.055320 1.0000 721.67 3886600 36.67 0.8510 0.055924 0.8510 0.055518 3767500 1.30 1.1996 18 3.02 4.60 1.0000 1.2610 1.2610 721.67 37.48 1.1910 19 3.02 1.60 -0.70 1.1910 1.0000 723.67 3694700 1.1328 36.90 0.20 -0.10 20 3.02 1.2010 1.2010 1.1424 0.9510 0.055535 3706100 1.0000 36.94 722.67 21 3.02 0.9510 0.095546 1 2690 1.0000 1.2690 1.2069 721.67 721.67 3716800 36.97 23 3.02 0.0 -3.00 1.1990 1.0000 1.1990 1.1400 0.9510 0.055483 3708300 36.89 5.00 0.0 5.00 3.00 0.9510 0.055576 23 3.02 1.2080 1.2080 1.1484 1.0000 37.01 721.67 3720800 24 3.02 1.1740 1.2340 1.2340 1.0000 0.9510 0.055598 37.04 721.67 3723800 25 3.02 5.00 -3.00 1.1790 1.0000 1.1790 1.1208 0.9510 0.055538 3715700 36.96 721.67 4.40 -0.60 1.2030 1.0000 1.2030 1.1437 0.9510 0.055976 26 3.24 45.05 726.67 3974400 27 3.24 5.20 1.70 0.9510 0.056019 1.2530 1.0000 1.2530 1.1917 45.15 725.67 3990400 1.50 -0.70 1.0000 0.9510 0.056035 46.17 28 3.24 1.2150 1.2150 1.1553 725.67 3992700 29 3.24 0.30 0.0 1.2050 1.0000 1.2050 1.1464 0.9510 0.055889 44.91 726.67 3962100 30 3.50 4.50 -0.40 1.2610 1,0000 1.2610 1.1993 0.9510 0.055407 727.67 4209800 54.99 31 3.50 5.30 1.50 1.3340 1.0000 1.3340 1.2683 0.9510 0.055427 730.67 54.95 4180900 1.3130 1.3130 32 3.50 1.40 0.20 1.0000 1.2486 0.9510 0.055430 54.98 729.67 4192000 33 3.50 0.40 -0.30 1.3250 1.0000 1.3250 0.9510 0.055543 1.2605 55.23 728.67 4219900 34 3.75 0.30 1.0000 1.2750 0.9510 0.053050 0.0 1.3410 1.3410 61.92 739.67 4058400 35 3 77 1.50 -0.50 1.3830 1.0000 1.3830 1.3157 0.9510 0.052582 61.87 739.67 4012800. 36 3.77 0.9510 0.052559 61.81 3.90 0.70 1.4010 1.0000 1.4010 1.3319 739.67 4009300 5.00 0.10 0.70 -0.60 0.9510 0.052574 37 3.77 1.3740 0000 1.3740 1.3066 61.88 738.67 4021600. 1.3062 38 4.02 1.3740 1.0000 1.3740 0.9510 0.051391 72.74 742.67 4122800 0.0 5.00 39 4.02 40 3.01 1.4580 1.0000 1.4580 1.3869 72.81 37.09 0.0 0.9510 0.051364 738.67 4159900 0.0 1.2832 0.9510 0.055879 1.3490 1.0000 1.3490 722.67 3741700 5.00 3.00 5.00 -3.00 0.9510 0.055893 0.9510 0.055846 41 3.01 42 3.01 1.3790 0000 1.3790 1.3113 37.07 37.01 724.67 724.67 3725100 3718800 1.3380 0000 1.3380 43 3.01 5.00 6.00 1.4350 1.0000 1.4350 1.3645 0.9510 0.055752 36.89 724.67 3706300 5.00 -6.00 1.1892 0.9510 0.055744 44 3.01 1.2500 1.2500 724.67 724.67 1.0000 36.88 3705200 1.0000 45 3.01 0.0 0.0 1,2690 1.2690 1.2067 0.9510 0.055838 37.00 3717700 46 3.01 3.00 1.3310 1.2662 0.9510 0.055788 0.0 1.0000 1.3310 36.93 724.67 3711100 0.9510 0.055794 0.9510 0.055805 47 3.01 48 3.01 0.0 -3.00 1.0000 1.1978 1.2600 1.2600 36.96 723.67 3721000 1.2605 6.00 1.0000 1.3250 0.0 1.3250 36.97 723.67 3722500 -6.00 0.0 0.9510 0.055968 49 3.01 0.0 1.2270 1.0000 1.2270 1.1673 37.23 721.67 3762900 -5.00 50 3.01 1.23GO 1.0000 1.2360 1.1754 0.9510 0.055797 36.98 722.67 3730600 1.2880 51 3.01 -5.00 3.00 1.0000 1.2880 1.2251 0.9510 0.055717 36.88 722.67 3719900 1.1900 52 3.01 -5.00 -3.00 1.0000 1.1900 1.1316 0.9510 0.055794 37.00 721.67 3739500 53 3.01 -5.00 6.00 1.3150 1.0000 1.3150 1.2505 0.9510 0.055717 720.67 36.91 3738500 54 3.01 -5.00 -6.00 1.2080 1.0000 1.2080 1.1484 0.9510 0.055783 37.00 720.67 3747400 0.0 -3.00 1.2510 1.2510 37.08 55 3.01 1.0000 1.1899 0.9510 0.055874 722.67 3741000 56 3.01 57 3.25 0.0 1.2370 0.0 1.2370 1.0000 1.1762 0.9510 0.055871 725.67 37.02 3712900 0.9510 0.055670 0.0 1.3230 1.0000 1.3230 1.2582 44.83 731.67 3894300 0.0 -3.00 5.00 0.0 1.2770 1.0000 1.2770 58 3.25 1.2146 0.9510 0.055860 45.07 734.67 3892000 1.3080 59 3.25 1.3080 1.0000 1.2441 0.9510 0.055847 48.07 733.67 3899700 0.9510 0.055389 0.9510 0.055442 1.2675 1.3330 1.0000 1.3330 60 3.51 0.0 0.0 55.0B 740.67 4084500 1.40 -0.20 1.2668 61 3.51 1.3320 1.0000 1.3320 55.16 741.67 4082200 62 3.51 0.0 -3.00 1.2920 .0000 1.2920 1.2289 0.9510 0.055339 55.03 738.67 4097500 63 3.51 5.00 0.0 1.3600 1.0000 1.3600 1.2930 0.9510 0.055354 55.11 736.67 4120500 64 3.76 65 3.76 0.9510 0.052913 0.9510 0.052942 0.0 0.0 1.3730 .0000 1.3730 1.3057 61.97 744.67 4000200 -3.00 0.0 1.3200 1.0000 1.3200 1.2552 746.67 61 98 66 3.76 67 3.76 5.00 0.0 1.4190 .0000 1.4190 1.3492 0.9510 0.062947 61.94 748.67 3965800 1.50 -0.50 1.3720 1.0000 1.3720 1.3049 0.9510 0.052832 61.90 740.67 4027900 68 4.04 1.4110 1.0000 1.4110 1.3415 0.9510 0.050999 0.0 0.0 72.84 742.67 4086300 69 4.04 5.00 0.0 1.4180 1.0000 1.4190 1.3490 0.9510 0.050913 72.73 738.67 4113400 5.00 1.0000 0.9510 0.050948 70 4.04 3.00 1.4890 1.4890 1.4161 72.87 737.67 4129500 71 4.04 5.00 -3.00 1.3510 1.0000 1.3510 1.2846 0.9510 0.050922 72.76 738 67 4114900 5.00 72 4.04 6.00 1.5910 1,0000 1.5910 1.5127 0.9510 0.050957 72.86 738 67 4120600 73 4.04 5.00 -6.00 1.3040 1.0000 1.3040 72.73 1.2403 0.9510 0.050925 739.67 4105000 72 90 74 4.04 0.0 3.00 1.5250 1.0000 1.5250 1.4498 0.9510 0.050994 740.67 4106000

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فالمسراة

TABLE VI (Concanued)

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93 4 00
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94 4 00
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95 4.00
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                                                  1.4040
                                                          0.9510 0.030223
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97 4.00
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                                                          0.9510 0.078417 140.45 1245.70
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98 4.00
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                                                          0.9510 0 947013
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101 4.00
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                                                  1.3850
                                                          0.9510 0.047091
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102 4.00
         -5.00
                 0.0
                        1.4580
                                1.0000
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                                                                                    737.67
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103 4.00 -5.00
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104 4.00
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                                                          0.9510 0.047128
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105 4.00
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                                                          0.9510 0.047081
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                                                                                             3500500.
   4.00
          0.70 -0.60
                        1.2880
                                1.0000
                                         1.2880
                                                  1.2250
                                                          0.9510 0.066420
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106
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                                                                                             6920200.
107 4.00
          0.70 -0.60
                        1.2600
                                1.0000
                                         1.2600
                                                  1.1980
                                                          0.9510 0.066764 120.72
                                                                                             6974400.
                                                                                     738.67
GAGE= 4063 X/L=0.9460 PHI=280.000 NRUN= 84
RUN MACH ALPHA
                 BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                           HU/HR
                                                                        HR
                                                                                PT
                                                                                                RE/FT
                 0.0
                       4.0388
                                0.8700
                                         4.6423
                                                 0.3744
                                                          0.0927 0.052504
                                                                             34.04
                                                                                    675.67
                                                                                             3783900.
    3.01 0.0
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                 0.0
                        3.8867
                                0.8700
                                         4.4675
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                                                          0.0927 0.052848
  2 3.01
          0.0
                                                                             33.94
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          2.40
                                                  0.3646
                                                          0.1447 0.058067
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                -0.60
                        2.5197
                                0.8700
                                         2.8962
  4 2.24
                                                                             23.14
                                                                                             4209300.
                                                          0.1447 0.057850
                        3.0117
                                0.8700
                                                 0.4358
  5 2.24
          2.60
                 0.80
                                         3.4617
                                                                             22.88
                                                                                    644.67
                                                                                             4099100.
                                                          0.1447 0.057984
                                0.8700
                                         2.9336
                                                 0.3693
                                                                                    648.67
  6 2.24
           1.80
                -0.70
                        2.5522
                                                                             22.93
                                                                                             4073900
                                                  0.4693
                                                          0.1447 0.058088
          0.60 -0.20
                        3.2433
                                0.8700
                                         3.7279
                                                                                             4077600
  7 2.24
                                                                             23.00
                                                                                     649.67
                                0.8700
                                         2.8970
          3.20
                                                  0.3143
                                                          0.1247 0.056426
  8 2.50
                -0.60
                        2.5204
                                                                             26.13
                                                                                     649.67
                                                                                             4048600.
                                0.8700
                                         2.9910
                                                          0.1247 0.056509
  9 2.50
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 10 2.50
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 11 2.50
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                                         3 4290
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                                                           0.1247 0.056307
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 12 2.75
           3.80
                -0.60
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                                0.8700
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                                                           0.1094 0.055904
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                                                                                     650.67
                                                                                             4211400.
 13 2.76
                 1.30
                        2.1461
                                0.8700
                                         2.4668
                                                  0.2483
                                                           0.1157 0.055575
           3.60
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                                                                                             4172900.
 14
    2.76
           0.90
                -0.80
                        3.3611
                                0.8700
                                         3.8633
                                                  0.3677
                                                           0.1094 0.055639
                                                                             31.07
                                                                                     652.67
                                                                                             4159500.
    2.76
           0.20
                        3.4717
                                0.8700
                                         3.9905
                                                  0.3798
                                                           0.1094 0.055712
 15
                 0.10
                                                                             31.17
                                                                                     651.67
                                                                                             4181900
    3.01
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                        4.3301
                                0.8700
                                         4.9771
                                                  0.3988
                                                           0.0921 0.052886
                                                                             34.04
                                                                                     674.67
                                                                                             3792900.
           4.50
                -0.70
                        2.1790
                                0.8700
                                         2.5046
                                                  0.2033
                                                           0.0933 0.055320
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 17 3.02
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                 1.30
                        2.3730
                                0.8700
                                         2.7276
                                                  0.2354
                                                           0.0992 0.055924
 18
    3.02
           4.60
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                                                                                     721.67
                                                                                             3767500.
                        3.8403
 19 3.02
           1.60
                -0.70
                                 0.8700
                                         4.4141
                                                  0.3583
                                                           0.0933 0.055518
                                                                             36.90
                                                                                     723.67
                                                                                             3694700.
                -0.10
                        4.2980
                                 0.8700
                                         4.9402
                                                  0.4010
                                                           0.0933 0.055535
 20 3.02
           0.20
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                                                                                     722.67
                                                                                              3706100.
           0.0
                 3.00
                        3.9886
                                 0.8700
                                         4.5846
                                                  0.4188
                                                           0.1050 0.055546
 21 3.02
                                                                             36.97
                                                                                     721.67
                                                                                             3716800.
                -3.00
                        3.6131
                                 0.8700
                                         4.1530
                                                  0.3371
                                                           0.0933 0.055483
    3.02
           0.0
                                                                             36.89
                                                                                     721.67
                                                                                             3708300.
                        2.1222
           5.00
                                 0.8700
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                                                           0.0933 0.055576
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 23 3.02
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 25 3.02
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 26 3.24
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                                                                                     726.67
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 27 3.24
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 28 3.24
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 29 3.24
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 30 3.50
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 31 3.50
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 32 3 50
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 33 3.50
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 34 3.75
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 36 3.77
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 37 3.77
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 38 4.02
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 39 4.02
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0.0934 0.055879

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37 18800.
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42 3.01
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 68 4.04
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 69 4.04
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 70 4.04
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 71 4.04
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 74 4-04
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                                         3.1175
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 75 4.04
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 76 4.04
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 77 4.04
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 78 4.04 -5.00
79 4.04 -5.00
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                                          1.9689
                                 O. B700
                         1.7129
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  85 3.01
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GAGE 4064 X/L=0.8460 PHI=180.000 NRUN= 84

"新"。

GAGE = 4064	X/L=0.8460	PH1 = 180	1.000 NKU	4- 04					
			TUD EAC	STRIBLE	HDTT/HD	HU/HŘ	HR PT	TT	RE/FT
RUN MACH A			TUR FAC I	1.6715	0.1348	0.0927 0.0528	94 34.04	675.67	3783900.
1 3.01	0.0 0.0	1.4542	0.8700		0.1152	0.0927 0.0528	48 33.94	677.67	3757200.
2 3.01	0.0 0.0	1.2427	0.8700	1.4284	0.1152	0.1447 0.0580		637.67	4209300.
4 2.24	2.40 -0.60	1.0041	0.8700	1.1541	0.1254	0.1447 0.0578		644.67	4099100.
5 2.24	2.60 0.80	0.8666	O.8700	0.9961	0.1254	0.1447 0.0578		648.67	4073900.
6 2.24	1.80 -0.70	0.9862	0.8700	1.1336		0.1447 0.0580		649.67	4077600.
7 2.24	0.60 -0.20	1.0318	0.8700	1.1860	0.1817	0. 1247 0.0564		649.67	404B600.
8 2.50	3.20 -0.60	1.4571	0.8700	1.6748	0.1076	0. 1247 0.056		649.67	4060500.
9 2.50	2.80 0.80	0.8629	0.8700	0.9918		0. 1247 0.056		649.67	4031000.
10 2.50	1.60 -0.70	1.7410	0.8700	2.0011		0. 1247 0.056		648.67	4042600.
11 2.50	1.50 0.20	1.4066	0.8700	1.6168		0.1084 0.055		650.67	4211400.
12 2.75	3.80 -0.60	1.5558	0.8700	1.7883		0.1094 0.055	31.03	650.67	4172900.
13 2.76	3.60 1.30	0.8126	0.8700	0.9340	_	0.1094 0.055		652.67	4159500.
14 2.76	0.90 -0.80	2.4744	0.8700	2.8441		0.1094 0.055		651.67	4181900.
15 2.76	0.20 0.10			1.6663		0.0921 0.052	· . · · · · · · · · · · · · · · · · · ·	674.67	3792900.
16 3.01	0.0 0.0	1.4256		1.6386		0.0933 0.055		721.67	3686600
17 3.02	4,50 -0.70			3.2499		0.0933 0.055		721.67	3767500.
18 3.02	4,60 1.30			2.5108		0.0933 0.055			3694700.
19 3.02	1.60 -0.70	2.9861		3.4323		0.0933 0.055		722.67	3706100.
20 3.02	0.20 -0.10	1.6345		1.8787		0.0933 0.055		721.67	3716800
21 3.02	0.0 3.00					0.1048 0.055	• . • • • • •		3708300
22 3.02	0.0 -3.00					0.0933 0.055			3720800
23 3.02	5.00 0.0	2.3430				0.0933 0.055			3723800.
24 3.02	5.00 3.00					0.1017 0.055			3715700.
25 3.02	5.00 -3.00				• • • • • • • • • • • • • • • • • • • •	0.0840 0.055			3974400
26 3.24	4.40 -0.60					0.0840 0.056			3990400
27 3.24	5.20 1.70								3992700
28 3.24	1.50 -0.70					0.0840 0.055			3962100
29 3.24	0.30 0.0	3.777				0.0756 0.059			4210000.
30 3.50	4.50 ~0.40	2.4299	9 0.8700	2.793	0 0.1637	0.0756 0.050	,,,,		

والعجاسة فأستحانعن

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31 3.50
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32 3.50
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34 3.75
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35 3.77
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36 3.77
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38 4.02
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39 4.02
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40 3.01
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42 3.01
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43 3.01
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                                                                                            3899700.
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                               0.8700
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61 3.51
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                                        8.5172
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62 3.51
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63 3.51
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                                        5.7931
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64 3.76
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                                        8.0115
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65 3.76
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                      6.0200
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66 3.76
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67 3.76
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68 4.04
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69 4.04
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70 4.04
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71 4.04
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72 4.04
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                6.00 10.4000
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                                      11.9540
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73 4.04
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74 4 04
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76 4.04
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77 4.04
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78 4.04 -5.00
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79 4.04 -5.00
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80 4.04 -5.00
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81 4 04 -8.00
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82 4.04 -5.00
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85 3.01
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                                       9.0805
                                                        0.1300 0.065521
                                                0.8723
                                                                           52.01
                                                                                  683.67
                                                                                           5684000
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والفجانية المتخاصي

GAGE= 4070 X/L=0.7530 PHI= 90.000 NBUN= 84

3163

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RUN MACH ALPHA
                 BETA HIHU*TH TUR FAC HIHU*TS HRTT/HR
                                                            HI1/HB
                                                                         HR
                                                                                 PT
                                                                                                  RE/FT
    3.01
                        2.4173
          Q,Q
                 0 0
                                                                                     676.67
                                0.8700
                                         2 7786
                                                 0,2323
                                                           0.0961 0.062894
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                        2.0822
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                                          2.3933
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                                                           0.0061 0.062848
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                                                                                              3757200.
  4 2 24
          2.40 -0.60
                        1.0056
                                 0.8700
                                         1 1650
                                                  0.1616
                                                           0 1607 0.068067
                                                                              23.14
                                                                                      637.67
                                                                                              4209300
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          2.60 0.80
                        1.0861
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                                                  0.1753
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                                                                                              4099100.
  6 2.24
           1.80 -0 70
                        1.3676
                                0.8700
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                                                  0,2169
                                                           0.1966 0.057984
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                                                                                              4073900
  7 2.24
          0.60 ~0.20
                                         1.7391
                        1.6130
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                                0.8700
                                                           O. 1487 Q. OBBORD
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                                                                                     649 67
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          9.20 ~0.60
                        1.5574
                                0.8700
                                         1.7801
                                                           0.1428 0.066426
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                                                                                     640.67
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  9 2,50
          2.80 0.80
                        1.0406
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                                         2.2306
                                                           0.1413 0.060800
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                        1.4489
                                0.8700
                                                  0.1086
                                          1.6694
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 11 2.90
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                                          1.6719
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                                                           0 1367 0 056307
                                                                              26.03
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 12 2.79
          3.90 -0.60
                       2.1017
                                9.8700
                                         2.6077
                                                  0.2821
                                                           9.1293 0.095804
                                                                              91.15
                                                                                      690.67
                                                                                              4211400.
 13 2.76
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                                                           0.1284 0.085979
0.1133 0.089630
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                                                                              31.03
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 14 2.76
15 2.76
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                                                                              31.07
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                                                                                     091.07
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 16 3.01
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                        2.9671
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                                                  0.2448
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                                                           0.0084 0.082886
                                                                              34 04
                                                                                     674.67
                                                                                              3792000
 17 3.02
           4.90 -0.70
                        2.1111
                                0.0700
                                         2.4266
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0.1730
                                                           0.1152 0.095320
                                                                              36.67
                                                                                      721.67
                                                                                              3686600
 18 3.02
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                        1.4992
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                                                                              37 4A
36.00
                                                           0 1197 0.095024
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                                                                                              3767900
 19 3.02
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                                                  0.4329
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                                                  0.2736
                                                           0.0867 0.088838
                                                                              36.04
                                                                                     722.67
                                                                                              3766100
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 21 3.02
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                                0.8700
                                         3.0108
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                                                           0.0967 0.059846
                                                                              36 87
                                                                                      721.67
                                                                                              3716800
 22 3.02
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                                                           0.0967 0.099483
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37.01
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 23 3.02
          9.00
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                                                           0.1176 0.088876
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9.00 -3.00
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                                                  0.18G7
                                                           0.1178 0 088898
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 25 3.02
26 3.24
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                                                           0.1178 0.059838
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 27 3.24
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                        3.3982
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                                                                                              3990400
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30 3.60
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                                                                              44.91
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                                                                              94.99
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                                                           0.0784 0.058543
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 35 3.77
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 36 3.77
37 3.77
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 38 4.02
39 4.02
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 42 3.01
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                                                           0.1176 0.055752
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724.67
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 46 3.01
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 51 3.01
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52 3.01 -5.00 -3.00
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 84 3.01
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 56 3.01
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                                                           0.0968 0.058871
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 57 3.25
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48.07
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60 3.51
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           1.40 -0.20
 61
   3.51
                       4.2071
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63 3.51
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64 3.76
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65 3.76
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                                                           0.0689 0.052942
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66 3.76
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                        1.9339
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                                         2.2229
                                                           0.0892 0.082947
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82 4.04 -5.00 -6.00
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GAGE - 4186 X/L=0.9620 PHI - 16.000 NRUN- 84 RE/FT HU/HR HR PT RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR 34.04 675.67 0.1918 0.052894 3783900. 5 1397 1,0000 5.1397 0.9858 1 3.01 0.0 0.0 4.8170 0.1918 0.052848 33.94 677.67 3757200 1.0000 4.8170 0.9239 2 3.01 0.0 0.0 5.4652 1.2313 0.2253 0.058067 23.14 637.67 4209300. 2.40 -0.60 5.4652 1.0000 4 2.24 0.9069 0.2298 0.057850 644.67 4099100. 3.9465 22.88 5 2.24 2.60 0.80 3.9465 1.0000 0.2270 0.057984 648.67 4073900. 1.80 -0.70 5.2498 1.0000 5.2498 1.1917 22.93 6 2.24 0.60 -0.20 1.1928 649.67 4077600. 1.0000 5.1171 0.2331 0.058088 23.00 7 2.24 5.1171 3.20 -0.60 2.80 0.80 0.9305 0-2062 0.056426 26.13 649.67 4048600. 4.5126 1.0000 4.5126 8 2.50 4.2258 0.2135 0.056509 26.21 649.67 4060500. 1.0000 4.2258 0.9022 9 2.50 0.2121 0.056303 649.67 4031000. 26 01 1.60 -0.70 5.9835 1.0000 5.9835 1.2691 10 2.50 0.2161 0.056307 26.03 1.1876 648.67 4042600. 11 2.50 1.50 0.20 5.4956 1.0000 5.4956 0.1915 0.055904 0.9354 31.15 650.67 4211400. 12 2.75 3.80 -0.60 4.8846 1.0000 4.8846 0.2006 0.055575 0.2027 0.055639 0.2094 0.055712 4172900. 13 2.76 14 2.76 31.03 650.67 3.60 1.30 3.9282 1.0000 3.9282 Q.788O 4159500. 1.1661 31.07 652.67 0.90 -0.80 5.7528 1.0000 5.7528 651.67 15 2.76 0.20 0.10 4181900. 5.5301 1.0000 5.5301 1.1580 31.17 3792900. 16 3.01 4.5160 1.0000 4.5160 0.8621 0.1909 0.052886 34.04 674.67 4.50 -0.70 4.60 1.30 3.6840 3.7538 1.0000 0.6318 0.1715 0.055320 36.67 721.67 3686600. 3.6840 17 3.02 0.6753 0.7548 0.7707 0.1799 0.055924 37.48 721.67 3767500. 1.0000 3.7538 18 3.02 0.1838 0.055518 0.1922 0.055535 4.1066 4.0099 2.9470 723.67 3694700. 19 3.02 1.60 -0.70 36.90 4.1066 36.94 722.67 3706100. 0.20 -0.10 4.0099 1.0000 0.6059 36.89 0.2056 0.055546 721.67 3716800. 21 3.02 0.0 3.00 0.0 -3.00 5.00 0.0 2.9470 1.0000 0.1803 0.055483 370B300. 721.67 22 3.02 5.5546 1.0000 5.5546 1.0015 0.1725 0.055576 721.67 3720800. 23 3.02 3.6174 1.0000 3.6174 0.6240 37.01 24 3.02 5.00 3.00 25 3.02 5.00 -3.00 3723800. 3.5154 0.6521 0.1855 0.055598 37.04 721.67 3.5154 1.0000 1.0000 3.2189 0.5118 0.1590 0.055538 721.67 3715700. 3.2189 36.96 0.1650 0.055976 726.67 3974400. 4.40 -0.60 3.4339 0.5666 45.05 3.4339 26 3.24 0.1719 0.056019 45.15 725.67 3990400. 3.5864 0.6165 27 3.24 5.20 1.70 3.5864 1.0000 0.6589 0.1773 0.056035 3992700. 725.67 45.17 1.50 -0.70 3.7163 1.0000 3.7163 28 3.24 29 3.24 30 3.50 726.67 0.30 0.0 3.2814 1.0000 3.2814 0.6087 0.1655 0.056889 44.91 3962100. 4.50 -0.40 5.30 1.50 4.0429 1.0000 4.0429 0.6412 0.1586 0.055407 54.99 727.67 4209800 1.0000 3.9658 0.6500 0.1639 0.055427 54.95 730.67 4180900. 3.9658 31 3.50 2.4179 0.4241 4192000. 0.1754 0.055430 54.98 729.67 1.40 0.20 2.4179 1.0000 32 3.50 0.1774 0.055543 0.1684 0.053050 4.0778 55.23 728.67 4219900. 1.0000 33 3.50 0.40 -0.30 4.0778 739.67 4058400. 34 3.75 0.30 0.0 3.2298 1.0000 3.2298 0.5435 61.92 739.67 4012800. 35 3.77 1.50 -0.50 3.4944 1.0000 3.4844 0.5626 0.1610 0.052582 61.87 36 3.77 37 3.77 0.1859 0.052559 739.67 4009300. 1.0000 4.2912 0.6690 61.81 3.90 0.70 4.2912 5.0587 0.7492 0.1481 0.052574 61.88 738.67 4021600 5.00 0.10 5.0587 1.0000 1.0000 0.1562 0.051391 72.74 742.67 4122800. 4.1504 4.1504 0.6483 38 4.02 0.70 -0.60 0.6158 0.1619 0.051364 4159900. 1.0000 72.81 738.67 3.8036 39 4.02 0.0 0.0 3 . 8036 0.1727 0.055879 0.1858 0.055893 0.4852 37.09 722.67 3741700. 40 3.01 5.00 0.0 2.8095 1.0000 2.8095 37.07 724.67 3725100. 5.00 3.00 3.2761 1.0000 3.2761 0.6087 41 3.01 3718800. 0.1593 0.058846 724.67 42 3.01 5.00 -3.00 2.8318 1.0000 2.8318 0.4511 37.01 724.67 3706300. 2.6927 0.5337 0.1982 0.055752 36.89 43 3.01 5.00 6.00 2.6927 1.0000 0.1458 0.055744 3705200. 5.00 -6.00 2.5953 1.0000 2.5953 0.3784 36.88 724.67 44 3.01 3.0996 3.0996 0.6004 0.1937 0.055838 37.00 724.67 3717700. 1.0000 0.0 45 3.01 0.0 0.2059 0.055788 0.5112 36.93 724.67 3711100. 2.4828 46 3.01 0.0 3.00 2.4828 1.0000 0.1806 0.055794 723.67 3721000. 36.96 0.9270 47 3.01 0.0 -3.00 5.1329 1.0000 5.1329 36.97 48 3.01 0.0 6.00 1.4527 1.0000 1.4527 0.3151 0.2169 0.055805 723.67 3722500. 5.1661 0.8617 0.1668 0.055968 37.23 721.67 3762900 -6.00 5.1661 1.0000 49 3.01 0.0 0.2123 0.055797 722.67 3730600. 1.0000 2.9732 0.6312 36.98 80 3.01 -5.00 0.0 2.9732 0.3510 722.67 1.5747 1.5747 0.2229 0.055717 36.88 3719900. 3.00 1.0000 51 3.01 -5.00 4.5075 0.2002 0.055794 37.00 721.67 3739500. 52 3.01 -5.00 -3.00 4.5075 1.0000 0.9024

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GAGE = 4187 X/L=0.9600 PHI=314.480 NRUN= 46
                 BETA HIHU*TH TUR FAC HIHU*TS HRTT/HR
                                                            HU/HR
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                                                                                PT
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RUN MACH ALPHA
                                1.0000
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 40 3.01
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 41 3.01
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 42 3.01
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 43 3.01
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 44 3.01
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 50 3.01 -5.00
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 51 3.01 -5.00
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                                                           0.1680 0.055354
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 63 3.51
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 64
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                                                           0.1672 0.050948
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 77 4.04
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82 4.04 -6.00 -6.00
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GAGE® 4188 X/L®O.8540 PHI®282.580 NRUN® 46
RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                         HU/HR
                                                                              PΫ
                                                                      HR
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O.1877 O.055794
O.2306 O.055717
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O. 1522 O. 052942
O. 1580 O. 052947
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 GAGE= 4189 X/L=0.9600 PHI=282.450 NRUN= 46
 RUN MACH ALPHA BETA HIHUTH TUR FAC HIHUTS HRTT/HR
                                                          HU/HR
                                                                               PT
                                                                                       TT
                                                                                               RE/FT
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                                                          0.1928 0.055879
                                                                                   722.67
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W :

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وتعريب ويوخل

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          Q \cdot Q
               -3.00
                       3.1243
                               1.0000
                                        3.1243
                                                0.5262
                                                         0.1681 0.055860
                                                                           45.07
                                                                                   734.67
                                                                                            3892000.
               0.0
59 3,25
          5.00
                               1,0000
                       1.8122
                                        1.8122
                                                0.3367
                                                         0.1858 0.055847
                                                                           45.07
                                                                                   733.67
                                                                                            3899700.
         Q \cdot Q
                0.0
                       2,3906
                               1.0000
                                        2.3906
                                                Q.4303
                                                         0.1800 0.056389
                                                                           55.08
                                                                                   740.G7
                                                                                            4084500.
61 9.51
          1.40 -0.20
                      2.9787
                               1.0000
                                        2.8787
                                                0.5320
                                                         0.1786 0.055442
                                                                           55 16
                                                                                   741.67
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62 3.51
         0.0
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                       4 3924
                               1.0000
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                                                0.7063
                                                         0.1608 0.086338
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                                                                                            4097500.
63 3.51
         5.00
              0.0
                       1.6338
                               1.0000
                                        1.5338
                                                0.2744
                                                         0.1789 0.055354
                                                                           65.11
                                                                                   736.67
                                                                                            4120500.
64 3.76
         Q \cdot Q
                0.0
                       1.9706
                               1.0000
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65 3.76
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66 3.76
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67 3.76
          1.50
              -0.50
                      2.8708
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69 4.04
         5.00
                0.0
                       1.3091
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70 4.04
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71 4.04
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               -3.00
                       1.6657
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72 4.04
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73 4.04
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76 4.04
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77 4.04
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80 4.04 -5.00
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83 4.04
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84 4.04
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85 3.01
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                      4.6377
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                                                1.0291
                                                         0.2219 0.065521
                                                                           52.01
                                                                                   683.67
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GAGE = 4190 X/L=0.9600 PHI=271.400 NRUN= 46

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RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HR RE/FT 40 3.01 5.00 0.0 0.5188 1.0000 0.5188 0.1061 0.2045 0.055879 37.09 722.67 3741700 41 3.01 5.00 3 00 0.4783 1.0000 0.4783 0.1046 0.2187 0.055893 37.07 724.67 3725 100. 42 3.01 5.00 -3.00 0.5844 1.0000 0.5844 0.1101 0.1884 0.055846 37.01 724.67 3718800. 43 3.01 5.00 6.00 0.8236 1.0000 0.8236 0.1900 0.2307 0.055752 36.89 724.67 3706300. 44 3.01 5.00 -6.00 0.8960 1.0000 0.8960 0.1534 0.1712 0.055744 36.88 724.67 3705200. 45 3.01 0.0 0.0 1.1481 1.0000 0.1938 0.055838 1.1481 0.2225 37.00 724.67 3717700. 46 3.01 0.0 3.00 1.5528 1.0000 1.5528 0.3247 0.2091 0.055788 36.93 724.67 3711100. 47 3.01 0.0 -3.00 1.3094 1.0000 1.3094 0.2319 0.1771 0.055794 36.96 723.67 3721000. 48 3.01 6.00 0.0 1.1424 1.0000 1.1424 0.2543 0.2226 0.055805 36.97 723.67 3722500. 49 3.01 0.0 -6.00 1.515 1,0000 1.5156 0.2422 0.1598 0.055968 37.23 721.67 3762900. 50 3.01 -5.00 0.0 0.9714 1.0000 0.9714 0.1765 0.1817 0 055797 36.98 722.67 3730600 51 3.01 -5.00 3.00 0.3598 1.0000 0.3598 0.0712 0.1979 0.055717 36.88 722.67 3719900. 52 3.01 -5.00 -3.00 1.2482 1.0000 1.2482 0.2057 0.1648 0.055794 37.00 721.67 3739500. 53 3.01 -5.00 6.00 0.1383 1.0000 0.1383 0.0294 0.2126 0.055717 36.91 720.67 3738500. 54 3.01 -5.00 -6.00 0.,8646 1.0000 0.8646 0.1277 0.1477 0.055783 37.00 720 67 3747400. 55 3.01 0.0 -3.00 1.1158 1.0000 1.1158 0.1976 0.1771 0.055874 37.08 722.67 3741000. 56 3.01 0.0 0.0 1.0439 1.0000 1.0439 0.2023 0.1938 0.055871 37.02 725.67 3712900. 57 3.25 0.0 0.0 1.0134 1.0000 1.0134 0.1893 0.1868 0.055670 44.83 731.67 3894300. 58 3.25 0.0 -3.00 1.5926 1.0000 1.5926 0.2701 0 1696 0 055860 45.07 734.67 3892000. 59 3.25 5.00 0.0 0.5422 1.0000 0.5422 0.1073 0.1979 0.055847 45.07 733.67 3899700. 60 3.51 0.0 0.0 0.7900 1.0000 0.7900 0.1422 0.1800 0.055389 55.08 740.67 4084500. 61 3.51 1.40 -0.20 1.1872 1.0000 1.1872 0.2163 0.1822 0.055442 55.16 741.67 4082200. 62 3.51 0.0 -3.00 1.2568 1.2568 1.0000 0.2041 0.1624 0.055339 55.03 738.67 4097500. 5.00 63 3.51 0.0 0.4472 1.0000 0.4472 0.0856 0.1914 0.055354 55.11 736.67 4120500. 64 3.76 0.0 1.0465 0.0 1.0000 1.0465 0.1777 0.1698 0.052913 61.97 744.67 4000200. 65 3.76 0.0 -3.00 1.0933 1.0000 1.0933 0.1522 0.052942 0.1664 746.67 61.98 3984700. 66 3.76 5.00 0.0 0.4307 1.0000 0.4307 0.0780 0.1811 0.052947 61.94 748 67 3965800. 67 3.76 1.50 -0.50 1.2352 1.0000 1.2352 0.2106 0.1705 0.052832 61.90 740.67 4027900 68 4.04 0.0 0.0 1.1124 1.0000 1.1124 0.1801 0.1619 0.050999 72.84 742.67 4086300. 69 4.04 5.00 0.0 0.4218 1.0000 0.4218 0.0731 0.1733 0.050913 72.73 738.67 4113400. 70 4.04 5.00 3.00 0.5498 1.0000 0.5498 0.1038 0.1888 0.050948 72.87 737.67 4129500. 71 4.04 5.00 -3.00 0.7639 1.0000 0.7639 0.1194 0.1563 0.050922 72.76 738.67 4114900. 72 4.04 5.00 6.00 0.5042 1.0000 0.5042 0.1020 0.2023 0.050957 72.86 738.67 4120600. 73 4.04 5.00 -6.00 1.1678 1.0000 1.1678 0.1615 0.1383 0.050925 72.73 739.67 4105000. 74 4.04 0.0 3.00 0.9450 1.0000 0.9450 0.1685 0.1783 0.050994 72.90 740.67 4106000. 75 4.04 0.0 6.00 1.0969 1.0000 1.0969 0.1930 0.050966 0.2117 72.A5 739.67 4111700. 76 4.04 0.0 -6.00 0.2714 1.0000 0.2714 0 0343 0.1264 0.050957 72.82 739.67 4110200. 77 4.04 0.0 -3.00 0.7846 1.0000 0.7846 0 1444 0 050963 0.1133 72.84 739.67 4111200. 78 4.04 -5.00 0.0 0.6839 1.0000 0.6839 0.1021 0.1493 0.050947 72.80 739.67 4108600. 79 4.04 -5.00 3.00 0.9254 1.0000 0.9254 0.1539 0.1663 0.050973 72.87 739.67 4112800 80 4.04 -5.00 -3.00 1.0251 1.0000 1.0251 0.1348 0 1315 0 050966 72.85 739.67 4111700 B1 4.04 -5.00 €.00 0.9731 0.9731 1.0000 0.1821 0.051001 0.1772 72.95 739.67 4117400 82 4.04 -5.00 -6.00 2.6098 1.0000 2.6098 0.2970 0.1138 0.050957 72.82 739.67 4110200. 83 4.04 0.0 0.1872 0.0 1.15G3 1.0000 1.1563 0.1619 0.050972 72.83 740.67 4102400.



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1.2452 0.2016 0.1618 0.050875 72.81 741.67 0.4881 0.1083 0.2218 0.065521 52.01 683.67 B4 4.04 0.0 0.0 1.2452 1.0000 4092500 85 3.01 0.0 0.4881 0.0 1.0000 5684000. GAGE= 4181 X/L=0.8540 PHI=247.100 NRUN# 46 RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HR HR TT RE/FT 1.0000 1.8465 0.3778 0.2046 0.055879 37 09 722.67 3741700 40 3.01 6.00 $\mathbf{0} \cdot \mathbf{0}$ 1.8465 37.07 0.1952 724.67 41 3.01 3.00 0.8913 1.0000 0.8913 Q.219Q Q.Q95893 3725100 5.00 3.0371 3.0371 0.5728 0.1886 0.055846 37.01 724.67 37 18800 42 3.01 DO. E- 00.8 1.0000 43 3.01 5.00 6.00 0.8662 1.0000 0.8662 0.2000 0.2309 0.055752 36.89 724.67 3706300 5.00 ~6.00 5.6628 1.0000 5.6628 0.9706 0.1714 0.055744 36,88 724.67 3705200 44 3.01 1.7258 0.3348 0.1940 0.055838 724.67 3717700. 0.0 1.7258 1.0000 37.00 45 3.01 0.0 0.3117 0.2093 0.055788 0.1773 0.055784 3.00 1.4892 724.67 3711100. 1.4892 36.93 0.0 1.0000 46 3.01 36.96 723.67 3721000 47 3.01 0.0 -3.00 2.3305 1.0000 2.3309 0.2813 0.2228 0.055805 36.97 723.67 3722500 1.2626 48 3.01 0.0 6.00 1.0000 1.2626 0.4621 0.1600 0.055968 37.23 721.67 3762800. 49 3.01 0.0 6.00 2.8881 1.0000 2.8881 0.1819 0.055797 3730600 50 3.01 -5.00 0.0 1.2705 1.0000 1.2705 0.2311 36.98 722.67 0.1981 0.055717 3.00 1.0000 1.3160 0.2607 36.88 722.67 37 19900 51 3.01 -5.00 1.3160 52 3.01 -5.00 -3.00 0.1650 0.055794 721.67 3738500. 1.1448 1.0000 1.1448 0.1889 37.00 1.9187 1.0000 0.4083 G.2128 O.055717 36.91 720.67 3738500. 53 3.01 -5.00 6.00 1.9187 1.0000 0.3037 0.1479 0.055783 37.00 720.67 3747400. 54 3.01 -5.00 -6.00 2.0534 2.0534 0.4144 0.1773 0.055874 2.3373 37.08 722.67 3741000. 2.3373 -3.00 55 3.01 0.0 0.1940 0.055871 0.3409 725.67 3712900. 1.7572 37.02 56 3.01 0.0 0.0 1.0000 0.1870 0.055670 3894300 57 3.25 0.0 0.0 2.8283 1.0000 2.8283 0.5289 44.83 731.67 0.1698 0.055860 734.67 3892000. 0.0 -3.00 2.2203 1.0000 2.2203 0.3770 45.07 56 3.25 2.1842 5.00 0.0 1.0000 2.1842 0.4327 0.1981 0.055847 45.07 733.67 3899700 59 3.25 3.3108 1.0000 3.3108 0.5966 0.1802 0.055389 55.08 740.67 4084500 0.0 0.0 60 3.51 1.40 -0.20 1.5740 1.0000 1,5740 -0.2871 0.1824 0.055442 55.16 741.67 4082200 61 3.51 0.0 -3.00 2.2868 0.1625 0.055339 4097500. 2.2868 1.0000 0.3716 55.03 738.67 62 3.51 5.00 1.0000 2.1247 0.4071 0.1916 0 055354 55.11 736.67 4120500. 63 3.51 0.0 2.1247 1.0000 1.6127 0.2740 0.1699 0.052913 61.97 744.67 4000200. 1.6127 64 3.76 0.0 0.0 0.2998 0.1524 0.052942 3984700 1.9672 746.67 -3.00 1.9672 61.98 1.0000 65 3.76 0.0 0.1813 0.052947 0.1707 0.052832 0.4765 1.0000 61.94 748.67 3965800 66 3.76 5.00 0.0 2.6282 2.6282 740.67 67 3.76 1.50 -0.50 1.5120 1.0000 1.5120 0.2581 61.90 4027900 0.1621 0.050999 742.67 4086300 68 4.04 0.0 0.0 1.3769 1.0000 1.3769 0.2232 72.84 5.00 0.0 5.00 3.0 2.2785 1.0000 2.2785 0.3951 0.1734 0.050913 72.73 738.67 4113400. 69 4.04 0.9116 0.1890 0.050948 72.87 737.67 4129500. 70 4.04 3.00 0.9116 1.0000 0.1723 0.1564 0.050922 3.7705 1.0000 3.7705 0.5897 72.76 738.67 4114900. 5.00 -3.00 71 4.04 0.9185 0.2025 0.050957 0.9185 1.0000 U. 1860 72.86 738.67 4120600. 72 4.04 5.00 6.00 0.1384 0.050925 0.1785 0.050994 739.67 740.67 0.9449 4105000. 6.8273 1.0000 6.8273 72.73 73 4.04 5.00 -6.00 72.90 4106000. 74 4.04 0.0 3.00 1.5389 1.0000 1,5389 75 4.04 0.0 6.00 1.4353 1.0000 1.4353 0.2773 0.1932 0.050966 72.85 739.67 4111700. 76 4.04 -6.00 3.3431 1.0000 3.3431 0.4229 0.1265 0.050957 72.82 739.67 4110200. 0.0 0.3183 0.1446 0.050963 739.67 4111200. -3.00 2.2012 1.0000 2.2012 72.84 77 4.04 0.0 0.1494 0.050947 3.0114 1.0000 3.0114 0.4499 72.80 739.67 4108600. 78 4.04 -5.00 0.0 0.1665 0.050973 4.0967 1.0000 4.0967 0.6821 72.87 739.67 4112800. 79 4.04 -5.00 3.00 0.1317 0.050966 1.0000 0.4620 72.85 739.67 4111700. 80 4.04 -5.00 -3.00 3.5080 3.5080 0.1823 0.051001 72.95 739.67 1.0000 2.9100 0.5305 4117400. 81 4.04 -5.00 6.00 2.9100 3.5759 72.82 739.67 4110200. 0.1139 0.050957 -5.00 -6.00 3.5759 1.0000 0.4073 82 4.04 0.1621 0.050972 72.83 740.67 4102400. 83 4.04 0.0 0.0 1,6749 1.0000 1.6749 0.2715 741.67 0.1621 0.050975 72.81 84 4.04 0.0 1.4244 1.0000 1.4244 0.2309 4092500 0.0 85 3.01 0.0 0.0 1.6348 1.0000 1.6348 0.3631 0.2221 0.065521 52.01 683.67 5684000. GAGE = 5029 X/L=0.0120 PHI=180.000 NRUN=105 RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HR HR PT 2.6622 3783900. 1.3617 0.5115 0.052894 34.04 675.67 1.0000 2.6622 1 3.01 0.0 0.0 2.7458 2.7458 1.0000 1.4045 0.5115 0.052848 33.94 677.67 3757200. 2 3.01 0.0 0.0 637.67 0.5614 0.058067 4209300 1.0000 1.0898 23.14 4 2.24 2.40 -0.60 1.8412 1.9412 0.5598 0.057850 4099100 0.80 2.0320 1.0000 2.0320 1.1375 22.88 644.67 5 2.24 2.60 1.7517 1.0000 1.7517 0.9850 0.5623 0.057984 22.93 648.67 4073900 6 2.24 1.80 -0.70 0.60 -0.20 7 2.24 1.3263 1.0000 1.3263 0.7471 0.5633 0.058088 23.00 649.67 4077600 2.1852 1.0000 2,1852 1.1975 0.5480 0.056426 26.13 649.67 4048600. 3.20 -0.60 8 2.50 0.5488 0.056509 26.21 649.67 4060500. 2.1542 1.0000 2.1542 1.1822 9 2.50 2.80 0.80 0.5502 0.056303 1.7932 649.67 4031000 1.7932 1.0000 0.9866 26.01 10 2.50 1.60 -0.70 1.50 0.20 1.7759 1.0000 1.7759 0.9773 0.5503 0.056307 26.03 648.67 4042600 11 2.50 3.80 -0.60 2.1243 1.0000 2.1243 1.1484 0.5406 0.055904 31.15 650.67 4211400 12 2.75 2.1270 1.0000 2.1270 1.1507 0.5410 0.055575 31.03 650.67 4172900 13 2.76 3.60 1.30 14 2.76 0.90 -0.80 2.0915 1.0000 2.0915 1.1342 0.8423 0.055639 31.07 652.67 4159500 1.0775 0.5416 0.055712 31.17 651.67 4181900 15 2.76 0.20 1.9895 1.0000 1.9895 0.10 1.4463 0.5100 0.052886 34.04 674.67 16 3.01 0.0 2.8359 1.0000 2.8359 3792900 0.0 0.5141 0.055320 721.67 4.50 -0.70 3.0041 1.0000 3.0041 1.5444 36.67 3686600 17 3.02 3.1461 1.6171 0.5140 0.055924 37.48 721.67 3767500 1.0000 18 3.02 4.60 1.30 3.1461 1.9789 723.67 1.0000 3.8373 0.5157 0.055518 36.90 3694700 19 3.02 1.60 -0.70 3.8373 0 5140 0.055535 36.94 722.67 3706100. 20 3.02 0.20 -0.10 3.3002 1.0000 3.3002 1.6963 21 3.02 0.0 3 00 3.4265 1.0000 3.4265 1.7595 0.5135 0.055546 36.97 721.67 3716800. 1.0000 3.3365 1.7133 0.5135 0.055483 36.89 721.67 3708300. 22 3.02 0.0 -3.00 3.3365

معريه بنوش

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4.04 0.0 739.67 0.0 4110200. 0.5795 1,0000 0.5795 0.2743 0.4733 0.050972 B4 4.04 72.83 0.0 740.67 4102400. 0.0 0.4158 1,0000 0.4158 0.1968 0.4733 0.050975 85 3.01 72.81 741.67 0.0 0.0 2.9728 1.0000 4092500. 2.9728 1.7349 0.5836 0.065521 52.01 86 4.00 683.67 0.0 0.0 0.7077 5684000. 1.0000 0.7077 0.3694 0.5220 0.089275 174.52 1438.70 87 4.00 0.0 3.00 2 0240 3643600. 1.0000 2.0240 1.0560 0.5220 0.089267 88 4.00 174.48 0.0 1438.70 -3.00 3642900 2.0880 1.0000 2.0880 1.0890 0.5220 0.089307 89 4.00 174.58 1440.70 5.00 0.0 3637100. 1.9600 1.0000 1.9600 0.5210 0.089162 174 11 1.0330 90 4 00 5.00 3.00 1437.70 2.0040 3639000 1.0000 2.0040 1.0570 0.5270 0.089322 174.70 1438.70 91 4.00 5.00 -3.00 3647500 2.2120 1.0000 2.2120 1.1660 0.5270 0.089307 174.61 1439.70 92 4.00 -5.00 0.0 0.6250 3641600 1.0000 0.6250 0.3102 0.5270 0.089259 174 42 93 4.00 -5.00 1439.70 3.00 0.6350 3637700. 1.0000 0.6350 0.3148 0.4970 0.089244 174.30 94 4.00 -5.00 1441.70 -3.00 3627400. 0.7410 1.0000 0.7410 6.3672 0.4960 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- المنترفع البيانات

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 RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                           HU/HR
   1 3.01 0.0
                                 1.0000 0.8733 0.1489 0.1705 0.052894
1.0000 0.8979 0.1531 0.1705 0.052848
1.0000 0.8446 0.2421 0.2663 0.058067
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GAGE= 5035 X/L=0.3328 PHI=180.000 NRUN=106
                BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
RUN MACH ALPHA
                                                         HU/HR
                                                                      HR
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 17 3.02
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21 3.02
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22 3.02
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23 3.02
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-3.00 0.0 0.8683 723.67 3721000 47 3.01 0.7036 0.8103 0.0762 0.1083 0.055794 36.96 0.6667 0.6741 0.5762 0.7809 0.8878 0.0722 0.1083 0.055805 36.97 723.G7 3722500 48 3.01 0.0 €.00 0.0730 0.1083 0.0659G8 721.67 3762900. 0.8977 37.23 49 3.01 0.0 -6.00 0.7509 3730600 722.67 50 3.01 -5.00 0.0 0.7968 0.7231 0.0624 0.1083 0.055797 36.98 0.4746 722.67 3719900 51 3.01 -5.00 3.00 0.8103 0.5857 0.0514 0.1083 0.055717 36.88 52 3.01 -5.00 -3.00 0.4848 0.5983 0.0525 0.1083 0.055794 37.00 721.67 3739500 0.8103 0.0613 0.1083 0.055717 36.91 720.67 3738500 53 3 01 -5.00 6.00 0.5660 0.7494 0.7553 -5.00 -6.00 0.1083 0.055783 37.00 720.67 3747400 54 3.01 0.5716 0.7491 0.7630 0.0619 0.8420 0.7748 55 3.01 56 3.01 0.6824 0.6741 0.7197 37.08 722.67 3741000 0.8104 0.0739 0.1083 0.055874 0.0 -3.00 725.67 3712900 0.8700 0.0730 O.1083 O.055871 37.02 0.0 0.0 731.67 0.8700 0.8273 0.0701 0.0974 0.055670 44.83 3894300 57 3.25 0.0 0.0 0.7290 0.8914 0.0710 0.0974 0.055860 45.07 734.67 3892000 0.0 -3.00 0.8178 58 3.25 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GAGE= 5036 X/L=0.3328 PHI=251.400 NRUN=106

RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HR HR PT TT RE/FT

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    A8
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GAGE - BO37 X/L-0.3328 PHI-270.000 NRUN-106

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                                                                                    738.67
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GAGE= 8038 X/L=0.3328 PHI=288.600 NRUN=106
RUN MACH ALPHA
                BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                           HU/HR
  1 3.01
                                                                       HR
          0.0
                 0.0
                       3.9517
                                0.8700
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                                        4.5422
                                                 0.4262
                                                          0.1076 0.052894
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  2 3.01
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          0.0
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                                                 0.4631
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 5 2.24
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13	2.76	3 GO 1	. 30	2.8404	0.8700	3.2649	0.3596	0.1266	0.055575	31.03	660.67	4172900.
14	2 76	0.90 -0	, BO	3.5016	0.8700	4.0248	0.4433		0.055639	31.07	662.67	4159500
15	-	D. 20 D	. 10	3.5466	0.8700	4.0766	0.4490		0.066712	31.17	661.67	4181900
16	3.01	$Q \cdot Q = Q$. (0	4.603B	0.8700	6.2919	0.4917		0.052886	34.04	674.67	3792906
17	3.02	4.60 -0	. 70	3.1221	G. 8700	3.6886	0.3376		0.055320	36.67	721.67	3686666
16	3.03	4.60 1	. 30	3.1089	0.8343	9.8342	0.3468		0.055924	37.48	721.67	3767500.
19	3.02	1.60 -0	7G	3.8594	0.8700	4.4361	0 4173		0.066620	96.00	729.67	
20	3.02		. 10	4 0010	0.8700	4 5996	0.4336	_	0.055535			3666000.
21	3.02		aa	3.0852	0.8736	4.5600	0.4308		0.056646	96.04	722.67	3706 100 .
33	3.02		.00	3 6546	0.8700	4.2000	0 4414			96.97	721.67	3716800.
23	3 03		. G	2.0556	0.7076				0.055483	36.89	721.67	3708360
24	3.02		.aa	agag E	0.8740	3.7061	0.3195		0.055576	37 01	721.67	3780800.
	3.02	6.00 -3		2.8134	0.8700	9.5246	0.3330		9-0000048	37,04	721.07	972360µ.
26			.60			3.2338	0 3227		0.055538	96,66	721.67	37 19700.
27	3.24		70	9.6949	0.8700	4 4962	0.3816		0.088976	46.05	726.67	99744QQ
26	3,24	1,60 -0		3.6318	0.0943	4.1342	0.8440	0.0074	0.096018	49.19	726.67	3000400.
29			-	4.6437	0.8700	6 9976	0 4623		0.050000	45.17	720.67	3882700
	9,24		, ()	4 8849	0 8121	6.0140	0.4707		0.069909	44.01	726-67	3862100
30			40	4.6999	9.0700	6.9997	0.4091		0 006407	94.00	727.67	4200800
31		the second second	. 90	4,6619	0 8613	6.2042	0.3990	0:0070	0.000427	b4 . 09	730.G7	4180800.
33			. 20	9.9200	0.6338	6.3030	0.4671		0 099430	64.00	720 67	4192000.
33	3,90		- 30	9.4892	0.0700	6.3048	0.4816	0.0070	0.005643	66.23	728.67	4219999.
34	3.75		.0	9.0344	0.0700	6.0177	0.4886	0.0773	0.093000	61.02	730.67	4058400
38	3 77		90	9.8418	0.8700	6.8266	0.4003	0.0773	0.052582	61.87	730.67	4012800
	3.77			9.8627	0.8586	6.4789	0 4300	0.0773	0.092999	G1.81	730.67	4009300
37	3.77		. 10	8 . 2636	0.0489	6.1993	9.4068	9.0773	0.092974	61.88	738.37	4021600.
	4.62		. 60	6.8110	0.8700	7.8288	9.4686		0.091301	72.74	742.67	4122800.
	4.02		.0	6.7340	0.0700	7.7402	0.4633		0.091364	72.81	738.67	4168900
	3.01		· O	3, 1154	0.8700	3,6806	0.3374		0.095879	37.00	722.67	3741700
41	3.01	9.00 3	.00	3.1136	0.8733	3.9693	0.3372		0.099993	37.07	724.67	3729100
42	3.01	9.00 -3	.00	2.8877	0.8700	3.3192	0.3318		0.099846	37.01	724 67	37 18800
43	3.01	9.00 6	.00	3.3019	0.9133	3.6184	0 3976		0.095782	36.89	724.67	3706306
44	3.01	6.00 -6	.00	2.737G	0.8700	3.1467	0.3474		0.099744	36.88	724.67	3709200
48	3.01	0.0 0	, O	4.1048	0.7967	6.2683	0.4943		0.099838	37.00	724.67	3717700
46	3.01	0.0 3	.00	3.9621	0.8737	4.8340	0.4201		0.068708	36.03	724.87	3711100
47	3.01	0.0 -3	.00	3.8413	0.8700	4.4183	0.4648		0.096784	36.96	723.67	3721000
46	3.01	0.0 6	.00	3.9067	0.9132	4.2781	0.4231		0.038808	36.97	723.67	3722500
49	3.01	0.0 -6	.00	9.3954	0.8700	3.8028	0.4994		0 098968	37.23	721.67	3762900
60	3.01		. 0	4.5099	0.8700	9.1838	0 5226		0.095797	36.98	722.67	
51	3.01		.00	4.8226	0.8737	5. 1764	0.4898		0.099717	39.68		3730600
82	3 01		.00	4.2092	0.8700	4.8381	0.5413		0.086784	37.00	722.67	37 19800.
53	3.01		00	4.9224	0.0134	8.3891	0.5331		0.099717		721.67	3730900.
54	3.01		.00	3.9006	0.8700	4.4834	0.5648			36.91	720.67	3738900.
55	3.01		,00	3.8711	0.8700	4.4495	0.4684		0.066783	37.00	720.67	3747400.
56	3.01		Ö	4.1782	0.7967	5,2444			0.055874	37.08	722.67	3741000.
67	3.25		. 0	5. 1776	0.8109	6.3880	0.4525		0.088871	37.02	725.67	3712900.
58	3.25		.00	4.5273	0.8700	5.2038	0.4980		0.095670	44.83	731.67	3894000.
69	3.25		.0	3.8409	0.8120	4.7255	0.4860		0.055860	45.07	734.67	3892000.
60	3.51		Ö	5.2903	0.8700	6.0808	0.4629		0.055847	45.07	733.67	389970C.
61			. 20	5.3337	0.8700	6.1307	0.4667		0.098389	55.09	740.67	4084500.
62	3.51		.00	5,4114	0.8700	6.2200	0.5406		0.056442	55.16	741.67	4082200.
63	3.51	_ ,	.0	4.6274	0.8700	5.3189	0.4049		0.055339	85.03	738.67	4097500.
64	3.76		Ö	6.0233	0.8467	7.1138	0.4686			96.11	736.67	4120500
	3.76		.00	5.4411	0.8700	6.2541	0.4848		0.052913	61.97	744.67	4000200.
	3.76		.0	5.2316	0.8700	6.0133	0.4044		0.052942	61.98	746.67	3984700
	3.76		.50	5.8748	0.8700	6.7523	0.4541		0.052847	61.94	748.67	3965800.
	4.04		.0	6.7573	0.8700	7.7670	0.4649		0.052552		740.67	4027900.
	4.04		ō	5.6323	0.8700	6.4739	0.3875		0.080999	72.84	742.67	4086300.
	4.04		.00	5.3852	0.9075	5.9344	0.3705			72.73	738.67	4113400.
	4.04		.00	B. 6024	0.8790	6.4396			0.050948	72.87	737.67	4129500.
	4.04		.00	5.3140	0.8221	5.7629	0.4187		0.050922	72.76	738.67	4114900.
	4.04		.00	5.1520	0.8700	5.9218	0.3686		0.050997	72.86	738.67	4120600.
	4.04		.00	5.9520			0.4441		0.050928	72.73	739.G7	4105000.
	4.04		.00		0.9076	6.5580	0.4095		0.050994	72.90	740.67	4106000
	4.04			4.9128	0.9220	5.3284	0.3380		0.050966	72.85	739 67	4111700.
	4.04		.00	5.2053	0.8700	5.9831	0.4948		0.080957	72.82	739.67	4110200.
			.00	6.2862	0.8700	7.2243	0.8047		0.050963	72.84	739.67	4111200.
	4.04		.0	6,4363	0.8700	7.3981	0.4853		0.050947	72.80	739.67	4108600.
	4.04		.00	6.8270	0.9076	7.5221	0.4697		0.050973	72.87	739.67	4112800.
	4.04		.00	6.1750	0.8700	7.0977	0.5434		0.080966	72.85	739.67	4111700.
	4.04		.00	7 . 2035	0.9221	7.8120	0.4956		0.081001	72.95	739.67	4117400.
	4.04		.00	6.0010	0.8700	6.8976	0.6289	0.1048	0.090997	72.82	739.67	4110200.
	4.04		.0	6.8474	0.8700	7.870G	0.4711	0.0618	0.080972	72.83	740.67	4102400.
	4.04		.0	6.9724	0.8631	8.0783	0.4797	0.0688	0.050975	72 81	741.67	4092500
	3.01		.0	3.8701	0.7967	4.8577	0.4768		0.065521	52.01	683.67	8684000
	4.00		.0	5.0414	0.8700	5.7947	0.4023				1436.70	3643600.
	4.00		.00	5.0514	0.9078	5.5644	0.4031				1438.70	3642900.
	4.00		00	5.0290	0.6700	5.7809	0.4677		0.089307			3637100
89	4.00	5.00 O	.0	4.8281	0.8627	6.5965	0.3848		0.089162			3639000
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                                                                                           3627400.
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93 4,00 -6.00
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GAGE 5039 X/L=0.4179 PHI= 2.500 NRUN=106
                                                                                              DE /FT
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RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                          HU/HR
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67 3.25 O.O
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 68 3.25
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                                0.8341
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 59 3.25
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62 3.51
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 63 3.51
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 64 3.76
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 67 3.76
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 68 4.04
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 71 4.04
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 77 4.04 0.0 -3.00
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                                0.8751
                                         3.8538
                                                          0.0878 0.050947
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79 4.04 -5.00
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                                         4.1782
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80 4.04 -5.00 -3.00
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                                0.8548
                                         4.3235
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 81 4.04 -5.00 6.00
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82 4.04 -5.00 -6.00
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                                0.8303
                                         4.7408
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83 4.04 0.0
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84 4.G4 0.0
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                                         3.8914
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85 3.01 -0.0
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                       2.4643
                                0.8700
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86 4.00 0.0
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                                0.8750
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                                                          0.0771 0.089275 174.52 1438.70
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87 4.00 0.0
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                                                          0.0771 0.089267 174.48 1438.70
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                                         3.8135
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88 4.00 0.0 -3.00
                       2.6083
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                                                          0.0771 0.089307 174.58 1440.70 0.0771 0.089162 174.11 1437.70 0.0772 0.089322 174.70 1438.70 0.0771 0.089307 174.61 1439.70 0.1019 0.089259 174.42 1439.70 0.1026 0.089244 174.30 1441.70
89 4.00 5.00 0.0
                       2.0597
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                                         2.3674
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90 4.00 5.00 3.00
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                                         3.2711
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91 4.00 5.00 -3.00
                       2.6926
                                         3.1507
                                                 0.2076
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92 4.00 -5.00 0.0
                       2.6094
                                         2.9822
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93 4.00 -5.00 3.00
                       1.9825
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                                         2.2787
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94 4.00 -5.00 -3.00
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0.0771 0.089292 174.48 1441.70
0.0376 0.030223 20.16 1428.70
                       2.3238
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                                         2.7201
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93 4.00 0.0 0.0
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86 4.00 0.70 -0.60
                       8.0395
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97 4.00
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                                                          0.0744 0.078417 140.45 1245.70 0.0736 0.070603 120.00 1051.70
                       3.4035
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98 4.00 0.0
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100 4.00 0.0
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102 4.00 -5.00
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103 4.00 -5.00
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104 4.00 -5.00 -3.00
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107 4.00
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                      2.5032
                                0.8706
                                        2.8752
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GAGE = 5040 X/L=0.4103 PHI= 2.500 NRUN-106
                                                           HU/HR
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3

RUN MACH ALPHA BETA HÌHU*TH TUR FAC HIHU*TS HRTT/HR 1 3.01 0.0 0.0 2.0643 0.8700 2.3728 0.2151 0.1042 0.052894 34.01 675.67 3783900. 2 3.01 0.0 0.0 1.9194 0.8180 2.3464 0.2000 0.1042 0.052848 33.94 677.67 3757200 4 2.24 2-40 -0.60 2.3039 2.6482 2.9009 0.8700 0.3730 0.1619 0.058067 23.14 637.67 4209300. 5 2.24 2.60 0.80 2.5238 0.8700 0.4086 0.1619 0.057850 22.88 644.67 4099100. 6 2.24 1.80 -0.70 2.4219 0.8700 0.1619 0.057984 2.7838 0.3921 22.93 648.67 4073900. 7 2.24 0.60 -0.20 2.1384 0.8700 2.4579 0.1619 0.058088 0.1397 0.056426 0.3462 23.00 649.67 4077600 8 2.50 3.20 -0.60 2.5104 0.8700 2.8855 0.3507 26.13 26.21 649.67 4048600 2.80 0.80 9 2.50 2.9284 0.8700 3.3660 0.1397 0.056509 0.4091 649.67 4060500. 10 2.50 1.60 -0.70 2.7681 0.1397 0.056303 0.1397 0.056307 0.8700 3.1817 0.3867 649.67 26.01 4031000. 11 2.50 1.50 0.20 2.5948 0.8700 0.3625 2.9826 26.03 648.67 4042600 12 2.75 3.80 -0.60 3.2364 3.1970 2.8157 0.8700 0.3452 0.1226 0.085904 31.15 650.67 4211400. 13 2.76 3.60 1.30 2.7814 0.8700 0.3410 0.1226 0.055575 31.03 650.67 4172900. 14 2.76 0.90 -0.80 2.5506 0.8700 2.9317 0.3127 0.1226 0.055639 34.07 652.67 4159500. 15 2.76 0.20 0.10 2.3703 0.8700 0.1226 0.055712 2.7245 0.2906 31.17 651.67 4181900. 16 3.01 0.0 0.0 2.3124 0.8700 2.6579 0.1034 0.052886 0.2391 34.04 674.67 3792900. 4.50 -0.70 17 3.02 2.9007 0.8225 3.5266 0.3037 0.1047 0.055320 36.67 721.67 3686600. 18 3.02 4.60 1.30 2.4422 0.8700 2.8071 0.1047 0.055924 0.2557 37.48 721.67 3767500. 19 3.02 1.60 -0.70 2.3629 0.8226 0.1047 0.055518 2.8725 0.2474 723.67 36.90 3694700. 20 3.02 0.20 -0.10 2.2015 0.8191 2.6877 0.2305 0.1047 0.055535 36.94 722.67 3706100. 21 3.02 0.0 3.00 2.2521 0.8700 2.5887 0.2358 0.1047 0.055546 36.97 721.67 3716800. 22 3.02 0.0 -3.00 2.3801 2.8791 0.8267 0.1047 0.055483 0.2492 36.89 721.67 3708300. 23 3.02 5.00 0.0 3.0630 0.8700 3.5267 3.3207 0.1047 0.055576 37.01 721.67 3720800.

24 3.02 6.00 3.00 2.8943 0.8700 3.4417 0.3138 0.1047 0.059898 37.04 25 3.02 721.67 3723800. 6 00 -3.QQ 3.9178 0.8267 4.7392 0.4102 0.1047 0.095538 26 3.24 36.86 721.67 3715700. 4.40 -0.60 2.3001 0.8339 2.7596 0.2169 0.0943 0.095980 45.05 726.67 27 3974000. 3.24 5.20 1.70 1.9258 0.8700 2.2135 0.1816 0.0943 0.056019 45.15 725.67 28 3.24 1.50 -0.70 3990400 2.5133 2.0933 0.8329 0.1974 0.0943 0.056036 45.17 29 3.24 0.30 725.67 3992700. 0.0 2.0710 0.8700 2.3806 0.1983 0.0943 0.056889 44.91 726.67 30 3.50 3962100. 4.50 -0.40 2.1647 0.8452 2.5612 0.1840 0.0860 0.055407 54.99 727.67 4209800 31 3.50 5.30 1.50 1.5966 0.8700 1 8350 0.1357 0.0850 0.058427 64.95 730.67 32 3.50 4 180900 1.40 0.20 1.7388 0.8700 1.9936 0.1478 0.0880 0.085430 729.67 54.98 33 3.50 0.40 -0.30 4192000. 2.1471 0.8453 0.1825 2.5400 0.0850 0.056843 55.23 728.67 34 3 75 0.30 4219900. 0.0 1.9626 0.8700 2.2568 0.1468 0.0748 0.053080 61.92 739.67 35 3.77 4058400 1.60 -0.50 2.0709 0.8586 2.4119 0.1549 0.0748 0.052582 61.87 738.67 4012800 36 3 77 3.90 0.70 2.3971 0.8700 2.7552 0.1793 0.0748 0.052559 61.81 739.67 37 3.77 4009300 5.00 0.10 2.0869 0.8700 2.3987 0.1961 0.0748 0.052574 61.88 738.67 38 4.02 0.70 -0.60 4021600 2.3679 2.7236 0.8694 0.1577 0.0666 0.051381 72.74 742.67 39 4.02 4122800. 0.0 0.0 2.1141 0.8740 2.4489 0.1408 0.0666 0.051364 72.81 738.67 40 3.01 4159900 5.00 0.0 3.2622 0.8180 3.9880 0.3422 0.1049 0.055879 37.09 722.67 3741700. 41 3.01 5.00 3.00 3.0334 0.8700 3.4866 0.3182 0.1049 0.055893 37.07 724.67 3725100 42 3.01 5.00 -3.00 3.8437 0.4032 0.8266 4.6500 0.1049 0.055846 37.01 724.67 43 3.01 5.60 6.00 3718800 3.7054 0.8700 4.2591 0.3887 0.1049 0.055752 36.89 724.67 44 3.01 3706300. 5.00 -6.00 2.3356 0.7698 3.0340 0.2450 0 1049 0 055744 36.88 724.67 3705200. 45 3.01 0.0 0.0 2.1230 0.8700 2.4402 0.2227 0.1049 0.055838 37.00 724.67 3717700. 46 3.01 0.0 3.00 2.3537 0.8700 2.7054 0.2469 0.1049 0.055788 36.93 724.67 3711100 47 3.01 0.0 - 5 . OO 2.4505 0.8265 3.0012 0.2602 0.1049 0.055794 3G.96 723.67 3721000 48 3.01 0.0 3.0496 6.00 0.8700 3.5053 0.3199 0.1049 0.055805 36.97 723.67 49 3.01 3722900. 0.0 -6.00 2.7178 0.7705 3.5274 0.2851 0.1049 0.055968 37.23 50 3 01 -5 00 721.67 3762900. 0.0 2.6530 0.8181 3.2429 0.2783 0.1049 0.055797 36.98 722.67 3730600. 51 3.01 -5.00 3.00 2.5558 0.8700 0.1049 0.055717 2.9377 0.2681 36.88 722.67 3719900 52 3.01 -5.00 -3.00 2.4576 0.8264 2.9738 0.2578 0.1049 0.055794 37.00 721.67 3739500 53 3.01 -5.00 6.00 2.8751 0.8700 3.3047 0.3016 0.1049 0.055717 36.91 720.67 3738500. 54 3.01 -5.00 -6.00 2.9075 0.7690 3.7809 0.3050 0.1049 0.055783 37.00 720.67 3747400. 55 3.01 0.0 -3.00 2.3947 0.8266 2.8970 0.2512 0.1049 0.055874 37.08 722.67 3741000 56 3.01 0.0 0.0 1.9876 0.8180 2.4298 0.2085 0.1049 0.055871 37.02 725.67 3712900 57 3.25 0.0 0.0 2.2503 0.8316 2.7059 0.2122 0.0943 0.055670 44.83 731.67 3894300. 58 3.25 0.0 -3.00 2.2460 0.8331 2.6.60 0.2118 0.0943 0.055860 45.07 734.67 3892000. 59 3.25 5.00 0.0 3.2895 0.8700 3.7810 0.3102 0.0943 0.055847 733.67 45.07 3899700 60 3.51 0.0 0.0 2.0685 0.8462 0.0847 0.055389 2.4444 0.1752 55.08 740.67 4084500 61 3.51 1.40 -0.20 1.8902 0.8460 2.2343 0.1601 0.0847 0.055442 55.16 741.67 62 3.51 4082200. 0.0 -3.00 2.2349 0.8402 2.6600 0.1893 0.0847 0.055339 55.03 738.67 4097500 63 3.51 5.00 0.0 2.8087 0.8700 3.2284 0.2379 0.0847 0.055354 55.11 736.67 4120500. 64 3.76 0.0 0.0 2.1725 0.8611 2.5229 0.1625 0.0748 0.052910 61.37 744 67 4000000 65 3.76 0.0 -3.00 2.3396 0.8469 0.0748 0.052942 2.7625 0.1750 61.98 746.67 3984700. 66 3.76 5.00 0.0 2.0789 0.8700 2.3895 0.1555 0.0748 0.052947 61.94 748.67 3965800 67 3.76 1.50 -0.50 2.1043 0.8581 2.4523 0.1574 0.0748 0.052832 61.90 740.67 4027900. 68 4.04 0.0 0.0 2.1622 0.8741 2.4736 0.1440 0.0666 0.050999 72.84 69 4.04 6.00 742.67 4086300. 0.0 2.1922 0.8740 2.5082 0.1460 0.0666 0.050913 72.73 738.67 4113400 70 4 04 5.00 3.00 2.9219 0.8700 3.3585 0.1946 0.0666 0.050948 72.87 737.67 4129500. 71 4.04 5.00 -3.00 3.3889 0.8540 3.9683 0.2257 0.0666 0.050922 72.76 738.67 4114900 72 4.04 5.00 6.00 3.1682 0.8700 3.6416 0.2110 0.0666 0.050957 72.86 738.67 73 4.04 4120600 5.00 -6.00 2.5631 0.8307 3.0854 0.1707 0.0666 0.050925 72.73 739.67 74 4.04 0.0 4105000. 3.00 2.8769 0.8700 3.3068 0.1916 0.0666 0.050994 72.90 740.67 75 4.04 4106000. 0.0 6.00 3.7568 0.8700 4.3181 0.2502 0.0666 0.050966 72.85 739.67 4111700. 76 4.04 0.0 -6.00 3.1637 1.8308 3.8080 0.2107 0.0666 0.050957 72.82 739.67 4110200 77 4.04 0.0 -3.00 2.5075 1.8540 2.9362 0.1670 0.0666 0.050963 739.67 72.84 78 4.04 -5.00 4111200. 0.0 3.3168 0.8740 3.7950 0.2209 0.0666 0.050947 72.80 739.67 4108600. 79 4.04 -5.00 3.00 3.5616 0.8700 4.0937 0.2372 0.0666 0.050973 72.87 739.67 4112800. 80 4.04 -5.00 -3.00 3.5781 0.8540 4.1898 0.2383 0.0666 0.050966 72.65 739.67 4111700 81 4.04 -5.00 6.00 4.3303 0.8700 4.9774 0.2884 0.0666 0.051001 72.95 739.67 82 4.04 4117400 -5.00 -6.00 3.8619 0.8307 4.6488 0.2572 0.0666 0.050957 72.82 739.67 83 4.04 4110200. Ö.O 0.0 2.2673 0.8741 2.5938 0.1510 0.0666 0.050872 72.83 740.67 4102400 84 4.04 0.0 Ó.0 2.3318 0.8700 2.6803 0.1553 0.0666 0.050975 72.81 741.67 4092500 85 3.01 0.0 0.0 1.8266 0.8700 2.0996 0.2181 0.1194 0.065521 52.01 683.67 86 4.00 5684000 0.0 0.0 2.1762 1.9018 0.8739 0.1472 0.0774 0.089275 174.52 1438.70 3643600. 87 4.00 0.0 3.00 2.2442 0.8700 2.5795 0.1737 0.0774 0.089267 174.4R 88 4.00 1438.70 3642900 0.0 -3.00 2.0091 0.8538 2.3531 0.0773 0.089307 0.1553 174.58 1440.70 89 4.00 3637100 5.00 0.0 1.7063 0.8700 1.9613 0.1319 0.0773 0.089162 174.11 1437.70 3639000. 90 4.00 5.00 3.00 2.2842 0.8700 2.6256 0.1768 0.0774 0.089322 174.70 1438.70 3647500 91 4.00 5.00 -3.00 1.9574 0.8537 2.2928 0.1515 0.0774 0.089307 174.61 1439.70 92 4.00 -5.00 3641600 0.02.4080 0.8739 2.7555 0.2461 0.1022 0.089259 174.42 1439.70 93 4.00 3637700 -5.00 3.00 1.7085 0.8700 1.9637 0.1758 0.1029 0.089244 174.30 1441.70 94 4.00 3627400. -5.00 -3.00 1.5514 0.8534 1.8179 0.1570 0.1012 0.089260 174.33 1442.70 3624100 95 4.00 0.0 0.0 1.9728 0.8700 2.2676 0.1525 0.0773 0.089292 174.48 1441.70 96 4.00 3631300 0.70 -0.60 4.4960 0.8696 5.1702 0.1695 0.0377 0.030223 20.16 1428.70 97 4.00 423840 0.0 0.0 1.9517 0.87Ô0 2.2434 0.1456 0.0746 0.078417 140.45 1245.70 3651900 98 4.00 0.0 0.0 2.0447 0.8739 2.3398 0.1509 0.0738 0.070603 120.00 1051.70 4033000 99 4.00 0.0 0.0 2.2539 0.8739 2.5791 0.1598 0.0709 0.064521 102.46 100 4.00 982 67 3816300. 0.0 0.0 2.5543 0.8700 2.9360 0.1622 0.0635 0.047013 60.24 728.67 3544500

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TABLE VI (Continued) 1.8288 0.8738 2.2076 0.1221 0.0633 0.047091 60.21 736.67

3484200.

101 4.00 5.00 0.0

102 4.00 -5.00 0.0

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2.5239 0.8700

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2.8011 0.2110 0.0836 0.047126 60.26 737.67
 107 4.00 -5.00 3.00
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                                                    2.7774 0.2037 0.0843 0.047189
                              2.4164
                                         0.8700
                                                                                                60.45
                                                                                                         737.67
                                                                                                                    3491300.
 104 4.00 -5.00 -3.00 2.4524
                                         0 8636
                                                    2.8733 0.2033 0.0829 0.047128 60.33
                                                                                                         735.67
                                                                                                                    3498600.
 105 4.00 0.0 0.0
                              2.4166
                                        0.8700
                                                   2.7764 0.1529 0.0633 0.047081 60.24
2.5186 0.1741 0.0795 0.066420 119.54
                                                                                                         734.67
                                                                                                                    3600500.
 106 4.00 0.70 -0.60 2.1899 0.8695
                                                                                                          737.67
                                                                                                                    6920200.
 107 4.00 0.70 -0.60
                                                    2.2799 0.1576 0.0795 0.066764 120.72
                              1.9824 0.8695
                                                                                                         738.67
                                                                                                                    6974400.
 GAGE - 5041 X/L=0.4244 PHI - 2.500 NRUN=106
 RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                                         HU/HR
                                                                                                  PT
                                                                                          HR
                                                                                                                        RE/FT
                             3.3166  O.8700  3.8122  O.3436  O.1036  O.082894  34.04  676.67  3783900.
3.1380  O.8218  3.8192  O.3252  O.1036  O.082848  33.94  677.67  3767200.
  1 3.01 0.0
                     0.0
   2 3.01 0.0
                     0.0
  4 2.24 2.40 -0.60 2.8348 0.8700 3.2584 0.4564
                                                                         0.1610 0.058067
                                                                                                23.14
                                                                                                         637.67
                                                                                                                    4209300
  5 2.24 2.60 0.80 2.7845
                                                   3.2005 0.4483 0.1610 0.057850
3.3012 0.4624 0.1610 0.057984
                                         0.8700 3.2005 0.4483
 5 2.24 2.60 0.80 2.7845
6 2.24 1.80 -0.70 2.8720
7 2.24 0.60 -0.20 2.5801
8 2.50 3.20 -0.60 3.0978
9 2.50 2.80 0.80 3.4115
10 2.50 1.60 -0.70 3.3259
11 2.50 1.50 0.20 3.0568
12 2.75 3.80 -0.60 3.4730
13 2.76 3.60 1.30 3.6697
                                                                                                22.88
                                                                                                         644.67
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                                         0.8700
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                                                             0.4154 0.1610 0.058088
0.4306 0.1390 0.056426
                                         0.8700
                                                   2.9657
                                                                                                23.00
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                                        0.8700
                                                   3.5607
                                                                                                         649.67
                                                                                                26.13
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GAGE= 5042 X/L=0.3515 PHI= 25.000 NRUN=106
                                                         HU/HR
                                                                     HD
                                                        0.1067 0.052884
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                      0.6382
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RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR RE/FT 3783900. 2 3.01 0.0 0.0 0.6064 0.8019 0.7562 0.0647 0.1067 0.052848 33.94 677.67 3757200. 0.1759 0.2190 2.40 -0.60 0.8700 4 2.24 1.0622 1.2209 0.1656 0.058067 23.14 637.67 4209300. 5 2.24 2.60 0.80 1.3225 0.8700 1.5201 0.1656 0.057850 22.88 644.67 4099100. 6 2.24 1.80 -0.70 0.8700 1.0759 0.9360 0.1550 0.1656 0.057984 22.93 648.67 4073900. 7 2.24 0.60 -0.20 1.1655 0.8700 1.3396 0.1930 0.1656 0.058088 23.00 649.67 4077600. 8 2.50 3.20 -0.60 0.9860 0.8700 1.1334 0.1411 0.1431 0.056426 26,13 649.67 4048600. 9 2.50 2.80 0.80 1.3452 0.8700 1.5462 0.1925 0.1431 0.056509 26.21 649.67 4060500 0.8854 0.8700 0.1267 10 2.50 1.60 -0.70 1.0177 0.1431 0.056303 649.67 26.01 4031900 0.8700 1.50 0.20 11 2.50 1.0601 1.2185 0.1517 0.1431 0.056307 26.03 648.67 4042600. 12 2.75 3.80 -0.60 0.8893 0.8700 1.0222 0.1117 0.1256 0.055904 31.15 4211400. 650.67 13 2.76 3.60 1.30 1.5223 0.8700 1.7498 0.1256 0.055875 0.1912 31.03 650.67 4172900. 0.90 -0.80 0.8700 0.0911 652.67 14 2.76 0.7253 0.8337 0.1256 0.055639 31.07 4159500 15 2.76 0.20 0.10 0.7970 0.8700 0.9161 0.1001 0.1256 0.055712 651.67 31.17 4181900 0.8700 0.7804 0.6789 0.0719 16 3.01 0.0 0.0 0.1059 0.052886 34.04 674.67 3792900. 4.50 -0.70 0.7481 17 3.02 0.8155 0.9174 0.0802 0.1072 0.055320 36.67 721.67 3686600. 1.4683 18 3.02 4.60 1.30 0.8700 1.6877 0.1574 0.1072 0.055924 37.48 721.67 3767500. 0.8157 36.90 19 3.02 1.60 -0.70 0.6082 0.7456 0.0652 0.1072 0.055518 723.67 3694700. 0.8476 0.1072 0.095535 0.20 -0.10 0.8045 0.0731 20 3.02 0.6819 3706100. 36.94 722.67 0.8700 21 3.02 0.0 3.00 1.3708 0.1560 0.1138 0.055546 36.97 721.67 3716800. 22 3.02 0.0 -3.00 0.8162 0.8526 0.9573 0.0875 0.1072 0.055483 3708300. 36.89 721.67 1.0457 23 3.02 5.00 0.0 0.8700 1.2020 0.1072 0.055576 0.1121 37.01 721.67 3720800. 0.8700 24 3.02 5.00 3.00 1.0112 1.1623 0.1084 0.1072 0.055598 37.04 3723800. 721.67 -3.00 0.1072 0.055538 5.00 0.4356 0.8526 0.5109 25 3.02 0.0467 36.96 721.67 3715700. 26 3.24 4.40 -0.60 0.8033 0.8258 0.9728 0.0776 0.0966 0.055976 726.67 45.05 3974400. 27 3.24 5.20 1.70 1.3965 0.8700 1.6051 0.1349 0.0966 0.056019 45.15 725.67 3990400. 0.0966 0.056035 28 3.24 1.50 -0.70 0.9493 0.8272 1.1476 0.0917 725.67 3992700. 45 17 0.30 1.3137 0.0966 0.055889 0.8700 1.5100 726.67 29 3.24 0.0 0.1269 44.91 3962100. 30 3.50 4.50 -0.40 0.7394 0.8378 0.8825 0.0644 0.0871 0.055407 54.99 727.67 4209800. 0.8700 1.6575 31 3.50 5.30 1.50 1.4420 0.1256 0.0871 0.055427 730.67 54.95 4180900. 0.1277 0.0871 0.055430 32 3.50 1.40 0.20 1.4661 0.8700 1.6852 54.98 729.67 4192000. 3.50 3.75 0.40 -0.30 0.8700 1.4543 33 1.2652 0.1102 0.0871 0.055543 55.23 728.67 4219900. 0.30 1.4705 0.8700 0.0 1.2794 0.0980 0.0766 0.053050 61.92 739.67 4058400.

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                                                                                           6920200.
                                                                          120.72
                                                                                  738.67
                                                                                           6974400
```

GAGE= 5043 X/L=0.3831 PHI=270.000 NRUN=106

RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HD HP PT TT REFFT

				4000		0.1063 O.Of	ลอสตุล จ	4.04 (375.67	783900
1 3.01	0.0 0.0					0.1059 0.05	T BAGOS			3767200
2 3.01	0.0				0.0600	U. 1008 O. 6	16040 0			1209300
4 2.24	2.40 -0.60	0.0826			0.0135	0.1636 0.09	SUBBO O			1009100
F 2.24	2.60 0.80	0.0924			0.0151	0. 1635 0.0	BECEV V		4-1 4 7 5 7	4073800
6 2 24	1.80 -0.70	0.1333	0.8700 C	. 1533	0.0218	0.1635 0.0	8 PBB19		4-464 1 11 2	4077600
7 2.24	0.60 -0.20),8700 Q	. 1968		0.1636 0.0	20100 S		4.14.14.1	4048600
8 2.50	3,20 -0.60		0.8700 C	.2841	0.0349	0.1412 0.0	56426 2		9 7 7 7 7 7	
	2.80 0.80			. 2654	0.0336	G. 1412 0.0	9890a N		• • • • • •	4060500
9 2.50	1.60 -0.70			. 3207	0.0394	0.1412 0.0	56303 3			4031000 ·
10 2.50				3785	0.0465	0.1412 0.0	86307 2			4042600
11 2.50	1,50 0,20			. 3414	0.0368	0.1239 0.0	66904 3			4211400
12 2.75	3,80 -0.60			3869	0.0417	0.1339 0.0	66676 3			4172900
13 2.76	3.60 1.30			4815	0.0519	0.1238 0.0	85639 3	31.07		4159500
14 2.76	0.90 -0.80			.4926	0.0931	C. 1239 0.0	55712 3	31.17		4181900.
15 2.76	0.20 0.10		· · - · · · · · · · · · · · · · · · · ·	7592	0.0643	0.1045 0.0	62886	34.04	674.67	3792900
16 3 01	0.0 0.0	•	•			0.1058 0.0	188320		721.67	3686600
17 3.02	4.50 -0.70		•	0.4911	0.0462	0.1058 0.0	66624	37.48	721.67	3767500.
18 3.02	4.60 1.30			5.5282	0.0467	0.1058 0.0	ABGG (B	36.90	723.67	3694700
19 3.02	1,60 -0.70	0.5898		5.6779	0.0624	0.1056 0.0		36.94	722.67	3706100
20 3.02	0.20 -0.10	0.5936		9.6823	0.0628	0.105B 0.0	755535		721.67	3716800.
21 3 02	0.0 3.00	0.5284	0.8645	0.6112	0.0559	0.1058 0.0		36.97		3708300
22 3.02	0.0 -3.00	0.3970	0.8700	0.4563	0.0472	0.1189 0.0		36.89	721.67	3720800
	5.00 0.0	0.4206		0.5185	0.0445	0.1058 0.0	55576	37.01	721.67	
	5.00 3.00	0.3355		0.3880	0.0355	0.1058 0.0		37.04	721.67	3723800.
24 3.02		0.397C		0.4563	0.0472	0.1189 0.0	55538	36.96	721.67	3715700.
25 3 02				0.7273	0.0603	0.0953 0.0	555976	45.05	726.67	3974400
26 3.24	4 40 -0.60	0.6327	0.8559	1.3829	0.1128	0.0953 0.0	056019	45.15	725.67	3990400
27 3.24	5.20 1.70	1.1836		1.0614	0.0880	0.0953 0.0		45.17	725 67	3992700.
28 3.24	1,50 -0.70	0.9234	0.8700		0.0854	0.0953 0.0		44.91	726.67	3962100.
29 3.24		0.8961	0.8243	1.0871	0.1427	0.0859 0.0		54.99	727.67	4209800.
30 3.50	4.50 -0.40		0.8700	1.9095		0.0859 0.0		54.95	730.67	4180900.
31 3.50	5.30 1.60		0.8667	1.4144	0.1053	0.0859 0.0		54.98	729.67	4192000.
32 3.50		1.0268	0.8435	1.2173	0.0882	0.0859 0.0	055430	55.23	728.67	4219900
33 3.50		1 . 1735	0.8700	1.3488	0.1008			61,92	739.67	4058400.
34 3.75		1.3280	0.8550	1.5533	0.1004	0.0756 0.			739.67	4012800
35 3.77		1.1270	0.8700	1 . 2954.		0.0756 0.	022282	61.87	739.67	4009300
36 3.77			0.8677	1.5260	0.1001	0.0756 0.	052559	61.81		4021600
			0.8577	2.0888	0.1339	0.0756 0.			738.67	
			0.8700	1.5422	0.0903	0.0673 0.	051391	72.74	742.67	4122800.
38 4.02		1,8336	0.870C	2,1076	0.1234	0.0673 0.	051364	72.81	738.67	4159900.
39 4.02	· · · · · · ·	1.0104	0.8700	1.1614	0.1071	0.1060 0.	055879	37.09	722.67	3741700.
40 3.0			0.8637	1.0038	0.0919	0.1060 0.	055893	37.07	724.67	3725100
41 3.0				1.2141	0.1258	0.1191 0.	095846	37.01	724.67	3718800.
42 3.0			0.8700			0.1060 0.	055752	36.89	724.67	3706300.
43 3.0	1 5.00 6.00		0.8928	0.9626		0.1342 0.	055744	36.88	724.67	3705200
44 3.0	1 5.00 -6.00	0.8703	0.8700	1.0003		0.1060 0	055838	37.00	724.67	3717700.
45 3.0	1.0.0 0.0	0.9198	0.8105	1.1349		0.1060 0		36.93	724.67	3711100.
46 3.0	1 0.0 3.00	0.6283	0.8642	0.7270		0.1191 0	05570A	36.96	723.67	3721000.
47 3.0		0.8018	0.8700	0.9217		0.1151 0.	055754	36.97	723.67	3722500.
48 3.0		0.5868	0.8928	0.6572		0.1060 0	.055805	37.23	721.67	3762900.
49 3.0			0.8700	0.6826			.055968		722.67	3730600
50 3.0			0.8700	Ø.5205				36.38		3719900.
51 3.0			0.8642	Q.5068	0.0464	0.1060 0		36.88	722.67	3739500
52 3.0			0.8700	0.373		0.1191 0		37.00	721.67	3738500
			0.8928	0.4089	3 ^ 0387	0.1060 0	.055717	36.91	720.67	3747400
53 3.0	1 -5.00 -6.0		0.8700	0.4488	3 '°24		.055783	37.00	720.67	
54 3.0	0.0 -3.0	0 1.0848	0.8700	1.2469	9 (J. 182	0.1191 0	.055874	37.08	722.67	3741000 3712900
55 3.0			0.8105	1.399	1 0.1202	0.1060 0	,055871	37.02	725.67	
56 3.0			0.8249	1.479		0.0953 0	.055670	44.83	731.67	3894300.
57 3.2			0.8700	1.397		0.1083 0	.055860	45.07	734.67	3892000
58 3.2	6 0.0 -3.0			1.346		0.0853 0	.Q55847	45.07	733.67	
59 3.2				1.399			.055389	55 . OS	740.67	
60 3.5				1.438	· · ·		.055442	55.16	741.67	4082200.
61 3.5	1 1.40 -0.2						. 055339	55.03	738.67	4097500
62 3.5	31 0.0 -3.0			1.221			055354	55.11		4120500.
63 3.				1.464				61.97		
64 3.	76 O.O O.C	1.3545		1.583			0.052510	61.98		
65 3.		00 1.2230		1.405			0.002042	61.94		
66 3.				1.688		2 0.0756 0	7. USES41	61.90		
67 3.				1.207).USZ63Z	72.84		
68 4			0.8700							
69 4.				1.924		7 0.0673	J. USUB13	72.73		
70 4.								72.87		
71 4	• • • • • • • • • • • • • • • • • • • •									
							0.050957			
72 4.						6 0.0947	0.050925	72.73		
73 4.		00 1.038				9 0.0673 (0.050984	72.9		
74 4.	•					3 0.0673	0.050966	72.8		
75 4.						2 0.0947	0.050957	72.8		
76 4.						4 0.0792	0.080963	72.8		
77 4.							0.050947	72.8	0 739.6	7 4108600
7B 4.	04 -5.00 0.	0.598	B 0.8700	, 0.000						

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79 4.04 -5.00 3.00 0.8617 0.9195 0.6108
                                                   0.0378
                                                            0.0673 0.050973 72.87
                                                                                       739.67
                                                                                                4112800
 80 4.04 -5.00 -3.00
                        0.3699
                                                            0.0792 0.050966
0.0673 0.051001
                                 0.8700
                                          0.4252
                                                   0.0283
                                                                               72.86
                                                                                       739.67
 81 4.04 -5.00
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                        1.7741
                                 0.8240
                                          1.9201
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 82 4.04 -5.00
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                                          1.5196
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                                                            0.0947 0.050957
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 83 4.04
          0.0
                 Q \cdot Q
                        1.7741
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                                          2.0392
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                                                            0.0673 0.050972
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                                                                                       740.67
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 84 4.04
           Q,Q
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                        1.7489
                                 0.8702
                                                            0.0673 0.060976
                                          2.0097
                                                   0.1177
                                                                              72.81
                                                                                       741.67
                                                                                                4092500
 85 3.01
           0.0
                 0.0
                        0.8592
                                                            0.1207 0.065621 62.01 689.67
0.0781 0.089279 174.52 1438.70
                                 0.8105
                                          1.0600
                                                   a. 1037
                                                                                                5684000
 86 4.00
           0.0
                 0.0
                         1.3367
                                 0.8700
                                          1.5365
                                                   0.1044
                                                                                                3643600.
 87 4.00
           0.0
                 3.00
                        1.3227
                                 0.8188
                                          1.4380
                                                   0.1033
                                                            0.0781 0.069267 174.48 1438.70
                                                                                                3642800.
 88 4.00
           0.0
                -3.00
                        0.9108
                                 0.8700
                                          1,0469
                                                   0.0837
                                                            0.0919 0.089307 174.58 1440.70
                                                                                                3637100.
 89 4.00
           9.00
                 0.0
                        1.6236
                                                            0.0781 0.089162 174.11 1437.70
0.0782 0.089322 174.70 1438.70
0.0919 0.089307 174.61 1439.70
0.0781 0.089269 174.42 1439.70
                                 0.8700
                                          1,8662
                                                   0.1268
                                                                                                3638000.
 90 4.00
           5.00
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                        1 0844
                                 0.8201
                                          1.1786
                                                   0.0848
                                                                                                3647500.
 91 4.00
           B . 00
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                        1.2916
                                          1.4846
                                 0.8700
                                                   Ó. 1187
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 92 4.00 -5.00
                                                   0.0845
                 0.0
                        1.0619
                                 0.8700
                                          1.2436
 93 4 00 -5 00
                                                                                                3637700.
                 3.00
                        0.9865
                                 0.9206
                                          1.0390
                                                            0.0781 0.089244 174.30 1441.70
0.0918 0.089260 174.33 1442.70
                                                                                                3627400.
 94 4.00 -5.00 -3.00
                        0.9368
                                          1.0768
                                 0.8700
                                                   0.0860
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 99 4.00
96 4.00
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                        1.2396
                                 0.8700
                                                            0.0781 0.089292 174.48 1441.70
                                          1.4202
                                                   0.09GS
                                                                                                3631300
          0.70 -0.60
                                                            0.0382 0.030223 20.16 1428.70
0.0754 0.078417 140.46 1245.70
                        1.9058
                                 0.8700
                                          2.1905
                                                   0.0728
                                                                                                 423840.
 97 4.00
          0.0
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                        1.2109
                                 0.8700
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98 4 00
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          0.0
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                                          1.3346
                                                            0.0749 0.070603 120.00 1091.70
                                                                                                4033000
          0.0
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                        1.2092
                                 0.8700
                                          1.3899
                                                   0.0867
                                                            0.0717 0.064521 102.46
                                                                                      982.€7
                                                                                                3816300
100 4.00
          0.0
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                        1.1433
                                 0.8700
                                          1.3141
                                                   0.0734
                                                            0.0642 0.047013
                                                                               60.24
                                                                                      728.67
                                                                                                3544500
101 4.00
                 0.0
          5.00
                        1.5484
                                 0.8700
                                          1.7798
                                                   0.0991
                                                            0.0640 0.047091
                                                                               60.21
                                                                                      736.67
                                                                                                3484200.
102 4.00 -5.00
                 0.0
                        1.0609
                                 0.8700
                                          1.2195
                                                   0.0679
                                                            0.0640 0.047126
                                                                               60.26
                                                                                      737.67
                                                                                                3480500
103 4.00 -5.00
                 3.00
                        0.9750
                                                   0.0625
0.0775
                                 0.9208
                                          1.0589
                                                            0.0641 0.047199
                                                                               60.45
                                                                                      737.67
                                                                                                3491300
104 4.00 -5.00 -3.00
                        1.0292
                                 0.8700
                                          1.1830
                                                            0.0753 0.047128
                                                                                      735.67
                                                                               60.33
                                                                                                3498600.
105 4.00
          0.0
                 0.6
                        1.1957
                                 0.2700
                                          1.3790
                                                   0.0769
                                                            0.0641 0.047081
                                                                               60.24
                                                                                      734 67
                                                                                                3500500.
106 4.00
          0.70 -0.69
                        1.0062
                                 9.8700
                                                            0.0804 0.066420 119.54
                                          1.1566
                                                   0.0809
                                                                                       737.67
                                                                                                6920200.
107 4.00
          0.70 -0.60
                        0.9776
                                 0.8700
                                          1.1237
                                                   0.0786
                                                            0.0804 0.066764 120.72
                                                                                      738.67
                                                                                                6874400.
GAGE = 5044 X/L=0.4090 PHI=180.000 NRUN=106
RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                             HU/HR
                                                                                  PT
  1 3.01 0.0
                        0.6065 0.8177 0.7417
                 0.0
                                                                                      675.67
677.67
                                                  0.0632
                                                            0 1042 0 052884
                                                                              34.04
                                                                                                3783900
                 0.0
  2 3.01
          0.0
                        0.5528
                                 0.8700
                                         0.6354
                                                   0.0576
                                                            0.1042 0.052848
                                                                                                3757200.
                                                                              33.94
  4 2.24
          2.40 -0.60
                        1.1837
                                 0.8700
                                                            0.1737 0.058067
                                          1.3605
                                                  0.2056
                                                                               23.14
                                                                                      637.67
                                                                                                4209300.
  5 2.24
          2.60 0.80
                        1..0968
                                 0.8700
                                          1.2607
                                                   0.1914
                                                            0.1745 0.057850
                                                                              22.88
                                                                                      644.67
                                                                                                4099100.
  6 2.24
           1.80 -0.70
                                                   0.1766
                        1.0297
                                 0.8700
                                          1.1836
                                                            0.1715 0.057984
                                                                               22.93
                                                                                      648.67
                                                                                               4073900
  7 2.24
          0.60 -0.20
                        1.3008
                                 9.8700
                                          1.4952
                                                   0.2106
                                                            0.1619 0.058088
                                                                               23.00
                                                                                      649.67
                                                                                               4077600.
  8 2.50
          3.20 -0.60
                        0.9256
                                 0.8700
                                          1.0639
                                                   0.1430
                                                            0.1545 0.056426
                                                                               26.13
                                                                                      649.67
                                                                                               4048600.
 9 2.50
          2.80 0.80
                        0.8124
                                 0.8700
                                          1.0487
                                                  0.1395
                                                            0.1529 0.056509
                                                                               26.21
                                                                                      649.67
                                                                                               4060500.
 10 2.50
          1.60 -0.70
                        1.0276
                                 0.8700
                                          1.1812
                                                  0.1524
                                                           0.1483 0.056303
                                                                               26.01
                                                                                      649.67
                                                                                               403 1000
 11 2.50
          1.50 0.20
                        1.0324
                                 0.8700
                                          1.1867
                                                  0.1528
                                                            0.1480 0.056307
                                                                                      648.67
 12 2.75
13 2.76
                                                                              26.03
                                                                                               4042600.
          3.80 -0.60
                        0.5707
                                 0.8700
                                         0.6560
0.6206
                                                  0.0799
                                                            0.1400 0.055904
                                                                              31, 15
                                                                                      650.67
                                                                                               4211400.
          3.60 1.30
                        0.5399
                                 0.8700
                                                  0.0751
                                                            0.1351 0.055575
                                                                              31.03
                                                                                      650.67
                                                                                               4172900.
 14 2.76
          0.90 -0.80
                        0.7767
                                 0.8700
                                                           O.1227 O.056639
O.1227 O.085712
                                         0.8927
                                                   0.0953
                                                                              31.07
                                                                                      652.67
                                                                                               4159500.
 15 2.76
          0.20 0.10
                        0.8191
                                 0.8700
                                         0.9415
                                                  0.1008
                                                                              31.17
                                                                                      651.67
                                                                                               4181900
 16 3.01
          0.0
                        0.6377
                 0.0
                                 0.8177
                                         0.7798
                                                  0.0660
                                                           0.1035 0.052886
17 3.02
18 3.02
                                                                              34.04
                                                                                      674.67
                                                                                               3792900
          4.50 -0.70
                        0.6022
                                 0.8207
                                         Ø.7338
                                                  0.0751
                                                           0.1247 0.055320
                                                                              36.67
                                                                                      721.67
                                                                                               3686600
                                         0.7351
0.7366
0.7543
          4.60 1.30
                        0.6054
                                 0.8236
                                                  Ø.0758
                                                            0.1252 0.055924
                                                                              37.48
                                                                                      721.67
                                                                                               3767500.
 19 3.02
          1.60 -0.70
                        0.6046
                                 0.8208
                                                  0.0679
                                                            0.1123 0.058518
                                                                              36.90
                                                                                      723.67
                                                                                               3694700.
20 3.02
          0.20 -0.10
                        0.6174
                                 0.8185
                                                  0.0647
                                                           0.1048 0.058535
                        0.8292
0.8721
0.6709
                                                                              36.94
                                                                                      722.67
                                                                                               3706100
21 3.02
          0.9 3.00
                                                           0.1048 0.055546
0.1048 0.055483
0.1273 0.055876
                                 0.8223
                                          1.0084
                                                  0.0869
                                                                              36.97
                                                                                      721.67
                                                                                               3716800.
22 3.02
          0.0 -3.00
                                 0.8222
                                          1.0607
                                                  0.0914
                                                                              36.89
                                                                                      721.67
                                                                                               3708300
          5.00 0.0
23 3.02
                                 0.8182
                                         0.8199
                                                  0.0884
                                                                              37.01
                                                                                      721.67
24 3.02
25 3.02
          5.00 3.00
5.00 -3.00
                                                                                               3720800
                        0.6300
                                 0.8222
                                         7.7662
                                                  0.0892
                                                           0.1273 0.055598
                                                                                      721.67
                                                                              37.04
                                                                                               3723800
                        0.6347
                                 0.8222
                                         0.7720
                                                  0.0808
                                                           9.1273 0.055538
                                                                              36.96...
                                                                                      721.67
                                                                                               3715700.
          4.40 -0.60
26 3.24
                        G.6714
                                 0.8311
                                         0.8078
                                                  0.0764
                                                           0.1138-0.055976
                                                                              45.05
                                                                                      726.67
                                                                                               3974400.
27 3.24
          5.20 1.70
                        0.5864
                                 0.8329
                                                  0.0692 0.1180 0.056019
                                         0.7041
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 GAGE - 5053 X/L=0.3690 PHI - 19.300 NRUN=106
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 RUN MACH ALPHA
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19 2.76 3.60 1.30 1.1954 0.8700 1.3740 0.1712 0.1246 0.066676 31.03 650.67 4172900. 14 2.76 0,80 -0.80 0.9147 0.8700 1,0514 0.1310 0.1246 0.055639 31.07 662.67 4 169600 16 2.76 0.20 0.10 0.8183 0.8700 0,8406 0.1172 0.1246 0.066712 31.17 661.67 4181800. 16 3.01 0.0 0.0 0.8832 0.8700 0.1051 0.052886 1.0162 0.1067 34.04 674 67 3792900. 17 3.02 0.8815 4.50 -0.70 0.8700 1.0132 0.1078 0.1064 0.056320 36.67 721.67 acaegoo. 18 3.02 4.60 1.30 0.8412 0.8700 1.0818 0,1151 0.1064 0.086924 37.48 721.67 3767500 18 3.02 1.60 -0.70 0.8060 0.8700 1.0414 0.1108 0.1064 0.055518 36,90 723.67 3694700 20 3.02 0.20 -0.10 0.8610 0 "00 0.9897 0.1053 0.1064 0.086838 36.94 722.67 3706 100 . 21 3.02 6.8700 0.0 3.00 0.8493 1.0911 0.1161 0.1064 0.058646 36.97 721.67 971CBQQ. 22 3.02 0.0 -3.00 1.3353 0.8700 1.5348 0.1633 0.1064 0.056483 721.67 36.80 3708300. 3.02 23 00.0 Q,Q0.9166 0.8700 1.0536 0.1121 0.1004 0.088676 37.01 721.67 3720800. 9.00 3.62 3.00 24 1.1832 0.8700 1.3600 0.1447 0.1064 0.056598 37.04 721.67 3723800. 28 3.02 5 00 -3.00 0.8912 0.8700 1.0244 0.1090 0.1064 0.095538 36.96 721 67 3716700. 26 3.24 4.40 -0.60 0.9988 0.8700 1.1480 0.1101 0.0989 0.086876 45.09 726.67 3974400 5.20 1.70 1.50 -0.70 27 3.24 5.20 0 6895 0.7929 0.8700 0.0760 0.0999 0.096019 46,16 725.67 3080400 28 3.24 1.0759 0 8700 1.2367 0.1186 0.0888 0.056038 45.17 729.67 3992700 3.24 28 0.30 0.0 1.0161 0.8700 0.0999 0.098889 1.1679 0.1120 44.91 726.67 3962100 0.8700 30 3.50 4.50 -0.40 0.9677 1.1123 0.0961 0.0864 0.085407 94.99 727.67 4209800 31 3.50 8.30 1.50 0.8638 0.8700 0.6480 0.0860 0.0864 0.055427 730.67 54.99 4180900 3.80 0.20 32 1.40 0.8982 0.8700 1.0324 0.0892 0.0864 0.059430 729.67 64.98 4182000 33 3.60 0.40 -0.30 0.7989 0.0864 0.058843 0.8700 0.9178 0.0793 99.23 728.67 4219900 3.75 0.30 34 0.0761 0.053050 0.0 0.8918 0.8700 1.0281 0.0780 61.92 739.67 4058400 3.77 38 1.50 -0.50 0.8026 U.8700 0.9225 0.0702 0.0761 0.052682 61.87 739.67 4012800 36 3.77 3.90 0.70 0.7443 0.8700 0.8555 0.0651 0.0761 0.052559 61,81 739.67 4009300 37 3.77 5.00 9.8700 0.10 0.9329 1.0723 0.0816 0.0761 0.052574 738.67 61-88 4021600 0 7839 38 4.02 0.70 -0.60 0.8700 0.9010 0.0610 0.0677 0.051391 72.74 742.67 4122800 39 4.02 0.0 0.0 0.9446 0.8700 1.0857 0.0735 0.0677 0.0B1364 72.61 738.67 4159900 40 3.01 5.00 0.9533. 0.0 0.8700 1.0967 0.1066 0.055879 0.1168 37.09 722.67 3741700 41 3.01 9.00 3.00 1.2413 0.8700 1.4268 0.1521 0.1066 0.055893 37.07 724.67 3725100 0.9492 42 3.01 5.00 -3.00 0.8700 1.0910 0.1163 0.1066 0.055846 37.01 724.67 3718800 6.00 43 3-01 5.00 1.3123 0.8700 1.5084 0.1608 0.1066 0.055752 724.67 36.89 3706300 0.8700 44 3.01 5.00 -6.00 1.0120 1.1632 0.1240 0.1066 0.055744 36.88 724.67 3705200 45 3.01 0.0 0.0 0.8782 0.8700 37.00 1.0094 0.1076 0.1066 0.055838 724.67 3717700 46 3.01 0.0 3.00 0.9567 0.8700 1.0997 0.1235 0.1123 0.059788 36.93 724.67 3711100 47 3.01 -3.00 0.0 1.3907 0.8700 1.5985 0.1704 0.1066 0.055794 36.96 723.67 3721000 48 3.01 0.0 6.00 1.1347 0.8700 1.. 3043 0.1509 0.1157 0.055805 36.87 723.67 3722500 49 3.01 0.0 -6.00 1.4747 0.8700 1.6951 0.1807 0.1066 0.055968 37.23 721.67 3762900 50 3.01 -8.00 0.0 0.8870 0.8700 1.0195 0.1305 0.1280 0.055797 36.98. 722.67 3730600 3.01 -5.00 3.00 0.9157 0.8700 1.0525 0.1403 0.1333 0.055717 36.88 722.67 3715900. 52 3.01 -5.00 -3.00 1.0603 0.8700 1.2187 0.1499 0.1230 0.055784 37.ÖO 721.67 3739500. 83 3.01 -5.00 6.00 0.4638 0.8700 0.0741 0.5331 0.1390 0.058717 36.91 720.67 3738500. 64 3.01 -5.00 -6.00 1.7488 0.8700-2.0101 0.2384 0.1186 0.055783 37.00 720.67 3747400 95 3.01 0.8700 0.0 -3.00 1.6507 1.7824 0.1653 0.1066 0.055874 37.08 722.67 374 1000 1.0760 56 3.01 0.0 0.0 0.8700 1.2368 0.1.147 0.1066 0.055871 37.02 725.67 3712900 3.25 0.0 1.,2179 0.0 0.8700 1.3999 0.0959 0.055670 0.1168 44.83 731.67 3894300 58 3.25 0.0 0.0959 0.085860 -3.00 1.6392 0.8700 1.8841 0.1572 45.07 734.67 3892000 59 3.25 5.00 0.0 0.7904 0.8700 0.0758 0.9085 G.0959 0.055847 45.07 733.67 3899700. 60 3.51 0.0 0.0 1.0626 0.8700 1.2214 0.0916 0.0862 0.055389 55.08 740.67 4084500 61 3.51 1.40 -0.20 1.1984 0.8700 1.3776 0.1033 0.0862 0.055442 65.16 741.67 4082200 62 3.51 0.0 -3.00 1.7622 0.8700 2.0255 0.1519 0.0862 0.055339 738.67 65.03 4097500 63 3.51 0.9118 5.00 0.0 0.8700 1.0480 0.0786 0.0862 0.055354 55.11 736.67 4120500 64 3.76 0.0 0.0 0.0761 0.052913 0.6700 1.1917 0.0789 61.97 744.67 4000200. 65 3.76 0.0 -3.00 1.9343 0.8790 2.2233 0.1472 0.0761 0.052942 61.98 746.67 3984700. 66 3.76 5.00 0.0 1.1327 0.8700 1.3020 0.0862 0.0761 5.052947 61.84 748.67 3965830 67 3.76 1.50 -0.50 0.9369 0.8700 1.0769 0.0713 0.0761 0.052832 61.90 740.67 4027900 68 4. 94 0.0 0.0 1.1270 0.8700 1.2954 0.0763 0.0677 0.060999 72.84 742.67 4086300 69 4.04 5.00 0.0 1.1950 0.8700 1.3736 0.0809 0.0677 0.050913 72.73 738.67 4113400 70 4.04 5.00 3.00 1.1270 0.8700 1,2954 0.0763 0.0677 0.050948 72.67 737.67 4129500 71 4.04 8.00 -3.00 1.3368 0.8700 1.5366 0.0905 0.0677 0.050922 72.76 738.67 4114900. 72 4.04 5.00 6.00 1.6942 0.8700 1.9474 0.1147 0.0677 0.050957 72.86 738.67 4120600 73 4.04 5.00 -6.90 1.2216 0.8700 1.4041 0.0827 0.0677 0.050825 72.73 739.67 4105000 4.04 O.O 3.00 0.6302 0.8700 0.7244 0.0455 0.0722 0.050994 72.90 740.67 4106000 75 4.04 0.0 6.00 0.3338 0.8700 0.3837 0.0766 0.050966 0.0252 72.85 739.67 4111700. 0.0 76 4.04 -6,00 2.4269 0.8700 2.7895 0.1643 0.0677 0.050957 72.82 739.67 4110200 77 4.04 0.0 -3,00 2.0857 0.8700 2.3974 0.0677 0.050963 0.1412 739.67 72.84 4111200 78 4.04 0.8700 -5.00 0.0 0.8898 1.0228 0.0783 0.0880 0.050947 72.80 739.67 4108600. 79 4.04 -5.00 0.8654 3.00 0.8700 0.9947 0.0810 0.0936 0.050973 72.87 739.67 4112800. -5.00 BO 4.04 1.4867 -3.00 0.8700 1.7088 Ø. 1234 0.0830 0.050866 72.85 739.67 4111700. -5.00 4.04 81 6.00 0.8270 0.8700 0.9806 0.0822 0.0994 0.051001 739.67 72.95 4117400. 82 4.04 -8.00 -6.00 2.0612 0.8700 2.3692 0.0784 0.050957 0.1616 72.82 739.67 4110200 83 4.04 0.0 0.0 1.1167 0.8700 1.2836 0.0756 0.0677 0.080972 72.83 740.67 4102400. 84 4.04 0.0 0.0 1 0976 0.8700 1.2615 0.0743 0.0677 0.050975 72.A1 741.67 4092500. 85 3.01 0.0 0.0 1.0231 0.8700 1.1760 0.1241 0.1213 0.065521 52.01 683.67 5684000. 86 4.90 0.0 0.0 0.8232 0.8700 0.9462 0.0647 0.0786 0.089275 174.52 1438.70 3643600. 87 4.00 0.0 3.00 0.2672 0.8700 0.3071 0.0210 0.0786 0.089267 174.48 1438.70 3642900. 88 4.00 0.0 -3.00 0.8700 1.7901 2.0576 0.1407 0.0786 0.089307 174.58 1440.70 3637100. 4.00 5.0ô 0.0 1.0522 0.8700 1.2094 0.0785 0.089162 174.11 1437.70 0.0826

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           0.70 -0.60
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                                         1.0514
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                                                          0.0800 0.066764-120.72
                                                                                    738.67
                                                                                             G974400.
GAGE: 5084 X/L=0.3620 PH1: 23.000 NRUN-106
RUN MACH ALPHA GETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                           HU/HR
                                                                                                RE/FT
  1 3.01
          0.0
                 0.0
                        1.7428
                                0.8700
                                        2 0032
                                                 0.1863
                                                          0.1069 0.082894
                                                                                             3783900
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                                                                                    676 67
  2 3.01
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                 0.0
                        1.6885
                                0.8700
                                         1.9408
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                                                          0.1069 0.092848
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                                                                                    677.67
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  4 2.24
           2.40 -0.60
                        1.3030
                                0.8700
                                         1.4977
                                                 0.2163
                                                          0.1660 0.058067
                                                                            23.14
                                                                                    637.67
                                                                                             4208300
           2.60
                0.80
                       2.8584
                                0.8700
                                         3.2865
                                                 0.4745
                                                          0.1660 0.087850
                                                                                    644.67
                                                                            22.68
                                                                                             4099100.
  6 2.24
           1.80 -0.70
                        1.2349
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                                         1.4194
                                                          0.1660 0.057984
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                                                                             22.93
                                                                                    648.67
                                                                                            4073900.
  7 2.24
           0.60 -0.20
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                                         2.1049
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 10 2.50
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 12 2.75
           3.80 -0.60
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 13 2.76
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 14 2.76
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38 4.02
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41 3.01
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42 3.01
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44 3.01
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45 3.01
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46 3.01
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47 3.01
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48 3.01
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49 3.01
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50 3.01 -5.00
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51 3.01 -5.00
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52 3.01 -5.00 -3.00
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53 3.01 -5.00
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54 3.01 -5.00 -6.00
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62 3.51
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69 4.04
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70 4.04
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71 4.04
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73 4.04
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74 4.04
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76 4.04
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77 4.04 0.0 -3.00
78 4.04 -5.00 0.0
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 79 4.04 -9.00
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80 4.04 -9.00 -3.00
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81 4.04 -5.00 6.00
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82 4-04 -5.00 -6.00
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83 4.04
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85 3.91
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86 4.00
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87 4.00
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 90 4.00
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 92 4.00
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 92 4.00 -5.00
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 84 4.00 -5.00 -3.00
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 95 4.00
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 96 4.00
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 97 4.00
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 98 4.00
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103 4.00 -5.00
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107 4.00
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GAGE = 5055 X/L=0.5450 PHI= 37.000 NRUN=106
RUN MACH ALPHA
                 BETA HIMU+TH TUR FAC HIMU+TS HRTT/MR
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 16 3.01
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 18 3.02
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 19 3.02
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 20 3.02
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 21 3.02
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 22 3.02
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 23 3.02
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0.1004 0.055576

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37 3 77 5 66 6 10	1.8142 0.8700 2.086	9 0.1299 0.0716 0.00266	91.07 739.67 4012000
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38 4 08 0 0 0 0	1.8827 0.8700 2.278 2.2468 0.8700 2.802	9 9 1363 0 0637 0 06136	1 79 74 949 69 44000
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43 3 01 5 00 6 00	1.2009 0.0700 1.403°	9.1306 0.1008 0 086046	37.07 724.67 3728100.
44 3.01 9.00 -6.00	1 4669 6 0800	7 9 999 0, 1008 0, 0697B2	36 88 984 88 9710000
49 3 01 0 0 0 0	1 6408 0 8700 1 8860	9 1477 0 1008 0 0BB744	36 99 304 69 3700300
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51 3 01 -5 00 3 00	1 7188 8 5 5 7 7 7 9 1 9 1	0.1963 0.1171 0.099767	37.23 721.67 3762900 36.98 722.67 3730600
52 3 01 -5 00 -3 00	1.4648 0.8700 1.6837	U.2188 0.1263 0.055717	96 66 90000
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67 3 76 4 80 0 0	9777 0.8700 2.2732	0.1481 0.0716 0.052942 0.1416 0.0716 0.052947	61.98 746.67 3984700
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37.04 25 3.02 721.67 5.00 -3.00 1.0447 3723800. 0.8700 0.0940 0.055538 1.2008 0.0982 36.96 26 3.24-721.67 0.9893 3715700. 4.40 -0.60 0.8700 0.0840 0.055976 0.0840 0.086019 1.1371 0.0831 27 3.24 45.05 726.67 3974400. 5.20 1.70 1.0548 0.8708 1.2124 0.0886 725.67 28 3.24 45.15 1.50 -0.70 1.1690 0.8700 3990400. 1.3437 0.0840 0.056035 0.0982 45.17 725.67 29 3.24 0.30 0.0 3992700. 0.8464 0.8700 0.0840 0.055889 0.9729 0.0711 726.67 727.67 44.91 30 3.50 4.50 -0.40 0.9276 3962100. 0.8700 0.0760 0.055407 1.0662 0.0705 54.99 31 3.50 5.30 1.50 4209860. 0.8566 0.8700 0.9846 0.0651 0.0760 0.055427 54.95 32 3.50 730.67 1.40 0.20 4180900. 1.2184 0.8700 1.4005 0.0926 0.0760 0.055430 54.98 729.67 33 3.50 0.40 4192000 -0.30 2.0500 0.8700 2.3563 0.1558 0.0760 0.055543 55,23 728.67 34 3.75 0.30 4219900. 0.0 2.2761 0.8700 2.6162 0.1525 0.0670 0.053050 61.92 36 3.77 739.67 4058400. 3.90 0.70 1.3418 0.8700 1.5423 0.0889 0.0670 0.052559 61.81 37 3.77 5.00 0.10 0.7463 739.67 4009300. 0.8700 0.8578 0.0500 0.0670 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TABLE VI (Continued)
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                                                                                           3637700
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92 4.00 -5.00
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                                                         0.0965 0.089244 174.30 1441.70
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                                                         0.0779 0.089260 174.33 1442.70
                                                                                           3624100
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94 4.00 -5.00
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                                                         0.0694 0.089292 174.48 1441.70
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                                                                                 1428.70
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96 4.00
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                                        1.3902
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                       1.2095
103 4.00 -5.00
GAGE = 5057 X/L=0.4350 PHI= 7.500 NRUN= 95
                                                                                               RE/FT
                BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                          HU/HR
RUN MACH ALPHA
                                                         0.1030 0.052894
                                                                            34.04
                                                                                   675.67
                                                                                            3783900.
                               0.8700 11.3816
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                                                         0.1600 0.057850
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O. 1040 O. 055968

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4012800

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3706300

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Q.BB04

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50 3.01 ~5.00 Q.Q
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 51 3.01 -5.00
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 62 3.01 -5.00 -3.00
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 68 4.04
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 70 4.04
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 77 4.04 0.0
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 80 4.04 -5.00
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 81 4.04 -5.00
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 82 4.04 ~5.00
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 83 4.04
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106 4.00
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                                                        0.0790 0.086420
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                      9.8480
                                                        0.0790 0.066764
                                               -0.7761
                                                                         120.72
                                                                                  738.67
                                                                                          6974400
GAGE= 5058 X/L=0.3420 PHI=270.000 NRUN= 94
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BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR RUN MACH ALPHA HU/HR 1 3.01 0.0 0.0 0.9700 1.0000 0.9700 1.7737 1.8194 0.052894 34.04 675.67 3783900. 2 3.01 0.0 0.0 0.8300 1.0000 0.8300 1.5076 1.8194 0.052848 33.94 677.67 3757200. 4 2.24 2.40 -0.60 0.8500 1.0000 0.8500 1.5552 1.8194 0.058067 23.14 637.67 4209300. 5 2.24 2.60 0.80 0.7900 1.0000 0.7900 1.4464 1.8194 0.057850 644.67 22.88 4099100. 6 2.24 1.80 -0.70 0.8300 1.0000 1.8194 0.057984 0.8300 1.5156 22.93 648.67 4073900. 2.24 0.60 -0.20 0.7600 1.0000 0.7600 1.3961 1.8194 0.058088 23.00 649.67 4077600 8 2.50 3.20 -Ø.60 0.8400 1.0000 0.8400 1.5264 1.8194 0.056426 649.67 26.13 4048600 9 2.50 2.80 0.80 0.8500 1.0000 0.8500 1.5456 1.8194 0.056509 649.67 26.21 4060500. 10 2.50 1.60 -0.70 0.8600 1.0000 O.8600 1.5590 1.8194 0.056303 26.01 649.67 4031000. 2.50 1.50 0.20 0.8300 1.0000 0.8300 1.5063 1.8194 0.056307 26.03 648.67 4042600 12 2.75 3.80 -0.60 0.8500 1.8194 0.055904 1.0000 0.8500 1.5547 31.15 650.67 4211400. 13 2.76 3.60 0.8700 1.30 1.0000 0.8700 1.5875 1.8194 0.055575 31.03 650.67 4172900. 2.76 14 0.90 -0.80 0.9100 1.0000 0.9100 1.6502 1.8194 0.055639 31.07 652.67 4159500 15 2.76 0.20 0.10 0.8800 1.0000 0.8800 1.5961 1.8194 0.055712 31.17 651.67 4181900 3.01 16 0.0 0.0 1.2300 1.0000 1.2300 2.2461 1.8194 0.052886 674.67 34.04 3792900 17 3.02 4.50 -0.70 0.8700 1.0000 0.8700 1.8194 0.055320 1.5816 36.67 721.67 3686600 18 3.02 4.60 1.30 0.9500 1.0000 0.9500 1.7333 1.8194 0.055924 37.48 721.67 3767500 19 3.02 1.60 -0.70 0.9300 1.0000 0.9300 1.6859 1.8194 0.055518 36.90 723.67 3684700 20 3.02 0.20 -0.10 0.9600 1.0000 0.9600 1.7489 1.8194 0.055535 36.94 722.67 3706100 21 3.02 0.0 3.00 0.9900 1.0000 0.9900 1.7927 1.8194 0.055546 36.97 721.67 3716800. 22 3.02 0.0 -3.00 1.0200 1.0000 1,0200 1.8549 1.8194 0.055483 36.89 721.67 3708300. 23 3.02 5.00 0.0 0.7300 1.0000 0.7300 1.3370 1.8194 0.055576 37.01 721.67 3720800. 24 3.02 5.00 3.00 0.9600 1.0000 0.9600 1.7391 1.8194 0.055598 37.04 721.67 3723800. 25 3.02 5.00 -3.00 0.7400 1.0000 0.7400 1.3445 1.8194 0.055538 36.96 721.67 3715700. 26 3.24 4.40 -0.60 0.7000 1.0000 0.7000 1.2649 1.8194 0.055976 45.05 726.67 3974400 3.24 5.20 1.70 0.8300 1.0000 0.8300 1.8194 0.056019 1.5116 45.15 725.67 3990400

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28 3.24
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GAGE= 5059 X/L=0.9080 PHI=331.000 NRUN=106
RUN MACH ALPHA
                 BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
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                               0.8700
                                                                                          6920200.
                                       2.2851
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                                                        0.0700 0.066764 120.72
                                                                                 738.67
                                                                                          6974400.
```

GAGE= 5060 X/L=0 9380 PHI= 10.000 NRUN=106

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RUN MACH ALPHA
                 BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR
                                                           HU/HR
  1 3.01
           0.0
                 0.0
                        3.1036
                                                                       HR
                                                                               PT
                                0.8700
                                                                                               RE/FT
                                         3.5674
                                                 0.2846
                                                          0.0917 0.052894
  2 3.01
           0.0
                 0.0
                                                                            34.04
                                                                                   675.67
                        2.8462
                                                                                            3783900.
                                0.8700
                                         3.2715
                                                 0.2610
                                                          0.0917 0.052848
  4 2.24
           2.40 -0.60
                                                                            33.94
                                                                                   677.67
                        2.2989
                                0.8700
                                                                                            3757200.
                                         2.6424
                                                         0.1432 0.058067
                                                 0.3292
  5 2.24
           2.60
                0.80
                                                                            23.14
                        2.6927
                                0.8700
                                                                                   637.67
                                                                                            4209300
                                         3.0951
                                                         0.1432 0.057850
                                                 0.3856
           1.80 -0.70
  6 2.24
                                                                            22.88
                                0.8700
                       2.5293
                                                                                   644.67
                                         2.9072
                                                                                            4099100.
                                                 0.3622
                                                         0.1432 0.057984
    2.24
           0.60 -0.20
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                                                                                   648.67
                       2.4344
                                0.8700
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                                         2.7982
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                                                         0.1432 0.058088
  8 2.50
           3.20 -0.60
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                                        2.8148
                                                 0.3022
                                                         0.1234 0.056426
  9 2.50
           2.80 0.80
                                                                            26.13
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                                                                                   649.67
                                0.8700
                                                                                            4048600.
                                        3.5890
                                                 0.3853
 10 2.50
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                                                                            26.21
                       2.4182
                                0.8700
                                                                                   649.67
                                                                                            4060500
                                        2.7795
                                                 0.2984
           1.50 0.20
                                                         0.1234 0.056303
 11
    2.50
                       2.4352
                                                                            26.01
                                0.8700
                                                                                   649.67
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    2.75
 12
           3.80 -0.60
                       2.5490
                                                                            26.03
                                                                                   648.67
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                                                                                            4042600
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                                                 0.2758
                                                         0.1082 0.055904
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          3.60
                1.30
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                                                                            31.15
                                                                                   650.67
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                                                                                            4211400.
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                                                         0.1082 0.055575
 14
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                                                         0.0911 0 052886
 17
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                                                 0.2378
                                                         0.0923 0.055320
 18
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                       3.3835
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 19 3.02
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 20 3.02
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22 3.02
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24 3.02
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25 3.02
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26 3.24
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27 3.24
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28 3.24
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46 3.01
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47 3.01
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                                       8.1966
                                               0.6589
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50 3.01
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                                                        0.1120 0.055797
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51 3.01 -5.00
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                       2.1567
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 52 3.01 -5.00 -3.00
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                       3.4711
                                0.8700
                                        3,9898
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 53 3.01 -5.00
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                       6.7735
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    3.25
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    3.25
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    3.25
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                                                                                            4084500
 61
    3.51
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62
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63 3.51
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 64 3.76
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69 4.04
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 70 4.04
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 71 4.04
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 72 4.04
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75 4.04
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76 4.04
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77 4.04
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 78 4.04 -5.00
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79 4 04 -5.00
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81 4.04 -5.00
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82 4.04 -5.00 -6.00
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83 4.04
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84 4.04
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85 3.01
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86 4.00
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                                        3.6225
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                                                         0.0686 0.089322
                                                                          174.70
                                                                                  1438.70
                                                                                            3647500.
91 4.00
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               -3.00
                       2.7143
                                0.8700
                                        3.1199
                                                 0.1862
                                                         0.0686 0.089307
                                                                          174.61
                                                                                  1439.70
                                                                                            3641600.
92 4.00
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                0.0
                       4.3104
                                0.8700
                                        4.9545
                                                 0.3888
                                                         0.0902 0.089259
                                                                          174.42
                                                                                  1439.70
                                                                                            3637700.
93 4.00 -5.00
                3.00
                       2.2551
                               0.8700
                                        2.5921
                                                         0.0937 0.089244
                                                 0.2113
                                                                          174.30
                                                                                  1441.70
                                                                                            3627400.
94-4.00
         -5.00
               -3.00
                       4.4919
                                        5.1631
                               0.8700
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                                                         0.0868 0.089260
                                                                          174.33
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95 4..00
          0.0
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                       5.1401
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                                        5.9082
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                                                         0.0685 0.089292
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96 4.00
          0.70 -0.60
                       7.3465
                               0.8700
                                        8.4443
                                                 0.2417
                                                         0.0329 0.030223
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97 4.00
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                                        7.4172
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                       6.4530
                               0.8700
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                                                         0.0660 0.078417
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                       6.3395
98 4.00
          0.0
                0.0
                               0.8700
                                        7.2868
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                                                         0.0651 0.070603
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99 4.00
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                0.0
                               0.8700
                                        7.8069
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                                                         0.0625 0.064521
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100 4.00
          0.0
                0.0
                       5.9496
                               0.8700
                                        6.8386
                                                 0.3308
                                                         0.0556 0.047013
                                                                           60.24
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101 4.00
          5.00
                0.0
                       4.7243
                                0.8700
                                        5.4302
                                                 0.2622
                                                         0.0555 0.047091
                                                                           60.21
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                                                                                            3484200
102 4.00
         -5.00
                0.0
                       2.0479
                                0.8700
                                        2.3539
                                                 0.1495
                                                         0.0730 0.047126
                                                                           60.26
                                                                                   737.67
                                                                                            3480500.
103 4.00
         -5.00
                3.00
                       2.1370
                                        2.4563
                                0.8700
                                                 0.1622
                                                         0.0759 0.047199
                                                                           60.45
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104 4.00
         -5.00
                -3.00
                       5.4040
                                0.8700
                                        6.2115
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105 4.00
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                       6.4595
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                                        7.4247
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                       4.3310
                               0.8700
                                        4.9782
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                                                         0.0701 0.066420
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                                                                                            6920200.
107 4.00
          0.70
               -0.60
                       4.2867
                               0.8700
                                        4.9272
                                                0.3005
                                                         0.0701 0.066764 120.72
                                                                                   738.67
                                                                                            6974400
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GAGE = 5061 X/L=0.9380 PHI=315.000 NRUN=106

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2 4 5 6 7 8 9 10 11 12 13 14 15	3.01 3.24 2.24 2.25 50 50 50 76 76 76 76 76 76	2.60 1.80 0.60 3.20 2.80 1.60 1.50 3.80 3.60 0.90 0.20	BETA 0.0 0.60 -0.60 -0.70 -0.20 -0.60 0.80 -0.60 1.30 -0.80 0.00 -0.70	M1HU*TH 3.8811 3.6281 8.1314 5.0077 7.2739 5.1467 7.7026 5.3055 8.9700 7.4547 4.0379 8.7292 2.8956 4.3117 4.9416	0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700 0.8700	HIMU+TS 4.4610 4.1746 9.3464 5.7560 8.3608 5.9157 8.8536 6.0987 4.5632 8.5686 4.6413 10.0336 3.3283 4.9560 5.6799	HRTT/HR 0.3559 0.3327 1.1636 1.0409 0.7365 0.9505 0.6547 1.0891 0.4899 0.8066 0.4369 0.9445 0.3133 0.3133	0.0917 0.1431 0.1431 0.1431 0.1234 0.1234 0.1234 0.1082 0.1082 0.1082 0.1082 0.0911	HR O.052894 O.0528467 O.057850 O.057850 O.057884 O.056303 O.056303 O.056307 O.056307 O.0556303 O.056307 O.0556303 O.055712 O.055712 O.052886 O.055320	PT 34.04 33.94 23.48 22.93 23.00 26.21 26.21 26.01 26.01 26.03 31.15 31.03 31.07 31.07	77 675.67 637.67 637.67 648.67 648.67 649.67 649.67 650.67 650.67 651.67 671.67	RE/FT 3783900. 3757200. 429300. 4099100. 4073900. 4077600. 4048600. 4060500. 4042600. 411400. 4172900. 4159500. 4181900. 3792900. 3686600.
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4.60 18 3.02 1.30 3.6804 0.8700 4.2303 0.3397 0.0923 0.055924 37.48 3767500 721 67 19 3 02 1.60 -0.70 0.8700 5.0211 4.3684 0.4032 0.0923 0.065518 36.90 723.67 3694700. 20 3.02 0.20 -0.10 3.7248 0.8700 4.2814 0.3438 0.0923 0.055535 36,94 722,67 3706100. 21 3.02 0.0 3.00 4.6067 0.8700 5.2951 0.4252 0.0923 0.055546 36.97 721.67 3716400. 22 3.02 0.0 -3.00 2.0910 0.8700 2.4034 0.1918 0.1010 0.055483 36.89 721,67 3708300. 23 5.00 3.02 0.0 5.2633 0.8700 6.0498 0.4858 0.0923 0.055576 37.01 721.67 3720800. 24 3.02 6.00 3 00 4.0412 0.8700 4.6451 0.3730 0.0923 0.056598 37.04 721.67 3723800. 25 3.02 5.00 -3.00 0.8700 7.3424 8.4395 0.6777 0.0923 0.056538 36,96 721.67 3715700. 26 3.24 4 40 -0 60 3.7747 0.8700 4.3387 0.3133 0.0830 0.055976 45.05 726.67 3974400. 27 3.24 5.20 1.70 2.6048 0.8700 2.9940 0.2162 0.0830 0.056019 45.15 725.67 3990400 28 3.24 1.50 -0.70 4.5470 0.8700 5.2264 0.3774 0.0830 0.056035 45.17 725.67 3992700. 29 3.24 0.30 0.0 1.9747 0.8700 2.2698 0.1635 0.0830 0.055889 44.91 726.67 3962100 3.50 30 4.50 -0.40 0.8700 3.0789 3.5390 0.2303 0.0748 0.055407 54.99 727.67 4209800 3.50 5.30 1.50 2.9599 0.8700 3.4022 0.0748 0.055427 0.2214 54.95 730.67 4180900. 32 3.50 1.40 0.20 2.1992 0.8700 2.5278 0.1645 0.0748 0.055430 54.98 729.67 4192000. 33 3.50 0.40 -0.30 2.0120 0.8700 2.3126 0.1505 0.0748 0.055543 55.23 728.67 4219900 34 3.75 0.30 0.0 10.7839 0.8700 12.3953 0.7085 0.0657 0.053050 61.92 739.67 4058400. 3.77 35 1.50 -0.50 2.5266 0.8700 2.9041 0.1660 0.0657 0.052582 61.87 739.67 4012800. 36 3.77 3.90 0.70 2.2953 0.8700 2.6383 0.1508 0 0657 0.052559 61.81 739.67 4009300 37 3.77 5.00 0.10 2.2618 0.8700 2.5998 0.1486 0.0657 0.052574 61.88 738.67 4021600 38 4.02 0.70 -0.60 4.2158 0.8700 4.8457 0.2462 0.0584 0.051391 72.74 742.67 4122800 39 4.02 0.0 0.0 3.1181 0.8700 3.5840 0.1821 0.0584 0.051364 72.81 738.67 4159500. 40 3.01 5.00 0.0 5.8171 0.8700 6.6863 0.5375 0.0924 0.055879 37.09 722.67 3741700. 41 3.01 5.00 3.00 3.5758 0.8700 4.1101 0.0924 0.055893 0.3304 37.07 724.67 3725100. 42 3.01 -3.00 5.00 7.7576 0.8700 8.9168 0.0924 0.055846 0.7168 37.01 724.67 3718800. 43 3.01 5.00 €.00 4.4729 0.8700 5.1413 0.4133 0.0924 0.055752 36.89 724.67 3706300. 44 3.01 5.00 -6.00 9.7446 0.8700 11.2007 0.9004 0.0924 0.055744 36.88 724.67 3705200. 45 3.01 0.0 0.0 4.1569 0.8700 4.7780 0.3841 0.0924 0.055838 37.00 724.67 3717700. 46 3.01 0.0 3.00 4.5065 0.8700 5.1799 0.4164 0.0924 0.055788 36.93 724.67 3711100. 47 3.01 0.0 -3.00 2.0714 0.8700 2.3809 0.2090 0.1009 0.055794 36.96 723.67 3721000. 48 3.01 0.0 6.00 4.2543 0.8700 4.8900 0.3931 0.0924 0.055805 36.97 723.67 3722500. 49 3.01 -6.00 10.3071 0.0 0.8700 11.8472 1.1245 0.1091 0.055968 37.23 721.67 3762900 50 3.01 -5.00 0.0 3.0490 0.8700 3.5046 0.3235 0.1061 0.055797 36.98 722.67 3730600 3.01 -5.00 3.00 6.1095 0.8700 7.0224 0.6024 0.0986 0.055717 36.88 722.67 37 19900 3.01 -5.00 -3.00 6.2930 0.8700 7.2356 0.7277 0.1156 0.055794 37.00 721.67 3739500 3.01 -5.00 6.00 4.6677 0.8700 5.3652 0.4313 0.0924 0.055717 36.91 720.€7 3738500 3.01 -5.00 -6.00 6.4392 0. 2700 7.4014 0.8152 37.00 O. 1266 O. 055783 720.67 3747400. 3.01 0.0 55 -3.00 1.9049 0.8700 2.1895 0.1922 0.1009 0.055874 37.08 722.67 3741000. 56 3.01 0.0 0.0 4.1039 0.8700 4.7171 0.3792 0.0924 0.055871 37.02 725.67 3712900. 57 3.25 0.0 0.0 2.3916 0.8700 2.7490 0.1985 0.0830 0.055670 44.83 731-.67 3894300 58 3.25 0.0 -3.00 3.2738 0.8700 3.7630 0.2989 0.0913 0.055860 45.07 734.67 3892000. 59 3.25 5.00 0.0 5.1060 0.8700 5.8690 0.423A 0.0830 0.055847 45.07 733.67 3899700. 60 3.51 0.0 0.0 2.7130 0.8700 3.1184 0.2024 0.0750 0.055389 55.08 740.67 4084500. 61 3.51 1.40 -0.20 2.2292 0.8700 2.5623 0.1663 0.0746 0.055442 55.16 741.67 4082200 3.51 3.7867 62 0.0 -3.00 0.8700 4.3525 0.3124 0.0825 0.055339 55.03 738.67 4097500 63 3.51 5.00 0.0 3.5496 0.8700 4.0800 0.2648 0.0746 0.055354 55.11 736.67 4120500 3.76 0.0 0.0 3.6058 0.8700 4.1446 0.2369 0.0657 0.052913 61.97 744.67 4000200 3.76 0.0 -3.00 6.3533 0.8700 7.3026 0.4657 0.0733 0.052942 61.98 746.67 3984700. 3.76 5.00 66 0.0 2.6971 0.8700 3.1001 0.1772 0.0657 0.052947 748.67 61.94 3965800. 67 3.76 1.50 -0.50 0.0657 0.052832 2.6195 0.8700 3.0109 0.1721 61.90 740.67 4027900. 68 4.04 0.0 0.0 3.8870 0.8700 4.4678 0.2270 0.0584 0.050999 72.84 742.67 4086300 69 4.04 5.00 0.0 6.5462 0.8700 7.5244 0.3823 0.0584 0.050913 72.73 738.67 4113400. 70 4.04 5.00 3.00 7.6678 0.8700 8.8136 0.4478 0.0584 0.050948 72.87 737.67 4129500. 71 4.04 5.00 -3.00 7.7414 0.8700 8.8982 0.4521 0.0584 0.050922 72.76 738.67 4114900. 72 4.04 6.00 6.00 3.7414 0.8700 4.3005 0.2185 0.0584 0.050957 72.86 738.67 4120600 73 4.04 5.00 -6.00 11,4360 0.8700 13.1448 0.7056 0.0617 0.050925 72.73 739.67 4105000 74 4.04 0.8700 0.0 3.00 5.5120 6.3356 0.3219 0.0584 0.050994 72.90 740.67 4106000 75 4.04 6.00 4.5771 0.0 0.8700 5.2610 0.2673 0.0584 0.050966 72.85 739.67 4111700 76 4.04 0.0 -6.00 4.7892 0.8700 5.5048 0.3544 0.0740 0.050957 72.62 739.67 4110200. 77 4.04 0.0 -3.00 7.0502 0.8700 8.1037 0.4632 0.0657 0.050963 72.84 739.67 4111200. 78 4.04 -5.00 0.0 3.5896 0.8700 4.1260 0.2545 0.0709 0.050947 72.80 739.67 4108600. 79 4 04 -5 00 3.00 9.3707 0.8700 10.7709 0.5941 0.0634 0.050973 72.87 739.67 4112800. 80 4.04 -5.00 7.7797 -3.00 6.7683 0.8700 0.5462 0.0807 0.050966 72.85 739.67 4111700. 81 4.04 -5.00 0.8700 15.7317 6.00 13.6866 0.7993 0.0584 0.051001 72.95 739.67 4117400 82 4.04 -5.00 -6.00 7.9870 0.8700 9.1805 0.7356 0.0921 0.050957 72.82 739.67 4110200 83 4.04 0.0 0.0 3.6764 0.8700 4.2257 0.2147 0.0584 0.050972 72.83 740.67 4102400 84 4.04 0.0 0.0 4.0137 0.8700 4.6134 0.2344 0.0584 0.050975 72.81 741.67 4092500 85 3.01 0.0 0.0 3.2597 0.8700 3.7468 0.1055 0.065521 0.3439 52.01 683.67 5684000 4.00 0.0 4.8740 0.0 0.8700 5.6023 0.3343 0.0686 0.089275 1438.70 174.52 3643600 4.00 0.0 3.00 3.6647 0.8700 4.2123 0.2514 0.0686 0.089267 174 AR 1438.70 3642900 88 4.00 0.0 -3.00 6.8766 0.8700 7.9041 0.5295 0.0770 0.089307 174.58 1440.70 3637100. 89 4.00 5.00 0.0 6.7679 0.8700 7.7792 0.4636 0.0685 0.089162 174.11 1437.70 3639000 90 4.00 5.00 3.00 4.5146 0.8700 5.1892 0.3097 0.0686 0.089322 174.70 1438.70 3647500 91 4.00 5.00 -3.00 8.3105 Ò.8700 9.5523 0.5701 0.0686 0.089307 174.61 1439.70 3641600. 92 4.00 -5.00 0.0 5.6286 0.8700 6.4697 0.0832 0.089259 174,42 0.4683 1439.70 3637700 93 4.00 -5.00 3.00 3.8280 0.8700 4.4000 0.2848 0.0744 0.089244 174.30 1441.70 3627400 94 4.00 -5.00 -3.00 0.8700 8.3651 9.6151 0.7905 0.0945 0.089260 174.33 1442.70 3624100.

95	4.00	\mathbf{Q} , \mathbf{Q}	$\mathbf{Q} \cdot \mathbf{Q}$	6,6737	0.8700	6,4066	0.3818	0.0685	0.089292	174.48	1441.70	3631300.
96	4.00	0.70	~ 0 .60	8 6900	0.8700	6,9885	0.2859	0.0329	0.030223	20.16	1428.70	423840
97	4.00	$\Omega \cdot \Omega$	0.0	5.0712	0.8700	6.8290	0.3347	0.0660	0.078417	140.45	1245.70	365 1900
86	4.00	$\Omega \cdot \Omega$	$Q \cdot Q$	4.3763	0.8700	6.0302	0.2849	0.0651	0.070603	120.00	1051.70	4033000
99	4.00	Q, Q	0.0	4.3782	0.8700	5.0336	0.2737	0.0625	0.064521	102.46	982.67	3816300
100	4.00	0.0	$Q \cdot Q$	6.0198	0.8700	6.9193	0.3347	0.0556	0.047013	60.24	728.67	3544500.
101	4.00	5,00	0.0	7.2973	0.8700	8.3877	0.4050	0.0555	0.047081	60.21	736.67	3484200
102	4.00	-6.00	0.0	8.6608	0.8700	6.4952	0.3803	0.0673	0.047126	60.26	737.67	3480500
103	4.00	~5.00	3.00	6.0083	0.8700	6.9061	0.3623	0.0603	0.047199	60.45	737.67	3491300.
104	4.00	- B . OO	-3.00	8.0353	.0.8700	9.2360	0.6147	0.0769	0.047128	60.33	735.67	3498600
105	4.00	0.0	0.0	5.0000	0.8700	5.7471	0.2775	0.0596	0.047081	60.24	734.67	3500500.
106	4.00	0.70	-0.60	5.0314	0.8700	6.7832	0.3527	0.0701	0.066420	119.54	737.67	6920200.
107	4.00	0.70	-0.60	4.5749	0.8700	6.2585	0.3207	0.0701	0.066764	120.72	738.67	6974400.

GAGE= 5062 X/L=0.926	60 PHI 0	.O NRL	M= 106					
RUN MACH ALPHA BETA	HIHU+TH	TUR FAC	HIHU+TS	HRTT/HR	HU/HR HR	PT	TT	RE/FT
1 3.01 0.0 0.0	6.5887	0.8700	7.5732	0.6055	0.0919 0.052894	34 04	675.67	3783900
2 3.01 0.0 0.0	6.2535	0.8700	7.1879	0.5747	0.0919 0.052848	33.94	677.67	3757200
4 2.24 2.40 -0.60	2.7057	0.8700	3.1100	0.3880	0.1434 0.058067	23.14	637.67	4209300.
5 2.24 2.60 0.80		0.8700	5.5123	0.6877	0.1434 0.057850	22.88	644.67	4099100.
6 2.24 1.80 -0.70		0.8700	3.4057	0.4249	0.1434 0.057984	22.93	648.67	4073900.
7 2.24 0.60 -0.20		0.8700	3.5709	0.4455	0.1434 0.058088	23.00	649 67	4077600.
8 2.50 3.20 -0.60 9 2.50 2.80 0.80		0.8700	3.4947	0.3761	0.1237 0.056426	26.13	649.67	4048600
9 2.50 2.80 0.80 10 2.50 1.60 -0.70		0.8700	6.0352 4.0402	0.6495 0.4348	0.1237 0.056509 0.1237 0.056303	26.21	649.67	4060500.
11 2.50 1.50 0.20		0.8700	5.0698	0.5456	0.1237 0.056307	26.01 26.03	649.67 648.67	4031000.
12 2.75 3.80 -0.60		0.8700	3.4706	0.3273	0.1084 0.055904	31,15	650.67	4042600. 4211400.
13 2.76 3.60 1.30		0.8700	7.2020	0.6792	0.1084 0.055575	31.03	650.67	4172900
14 2.76 0.90 -0.86		0.8700	4.2340	0.3993	0.1084 0.055639	31.07	652.67	4159500
15 2.76 0.20 0.16	4.7878	0.8700	5.5032	0.5190	0.1084 0.055712	31.17	651.67	4181900.
16 3 01 0 0 0 0	6 9430	0.8700	7.9805	0.6332	0.0912 0.052886	34.04	674.67	3792900.
17 3.02 4.50 -0.70		0.8700	3.8807	0.3123	0.0925 0.065320	36.67	721.67	3686600.
18 3.02 4.60 1.30		0.8700	7.1737	0.5773	0.0925 0.055924	37.48	721.67	3767500.
19 3.02 1.60 -0.70		0.8700	5.3557	0.4310	0.0925 0.055518	36.90	723.67	3694700.
20 3.02 0.20 -0.10		0.8700	7.8584	0.6324	0.0925 0.055535	36.94	722.67	3706100.
21 3.02 0.0 3.00 22 3.02 0.0 -3.00		0.8700	9.2103	0.7412	0.0925 0.055546	36.97	721.67	3716800.
23 3-02 5.60 0.0	3.7589	0.8700	6.3498 4.3206	0.5110	0.0925 0.055483 0.0925 0.055576	36.89	721.67	3708300.
24 3.02 5.00 3.0		0.8700	11.8174	0.9510	0.0925 0.055598	37.01 37.04	721.67 721.67	3720800.
25 3.02 5.00 -3.0		0.8700	6.0889	0.4900	0.0925 0.055538	36.96	721.67	3723800. 3715700.
26 3.24 4.40 -0.6		0.8700	6.1451	0.4448	0.0832 0.055976	45.05	726.67	3974400
27 3.24 5.20 1.7		0.8700	8.1316	0.5886	0.0832 0.056019	45.15	725.67	3990400.
28 3.24 1.50 -0.76	8.9207	0.8700		0.7422	0.0832 0.056035	45.17	725.67	3992700.
29 3.24 0.30 0.0	9.4250	0.8700	10.8333	0.7823	0.0830 0.055889	44.91	726.67	3962 100
30 3.50 4.50 -0.4		0.8700	6.8046	0.4434	0.0750 0.055407	54.99	727.67	4209800.
31 3.50 5.30 1.5		0.8700	9.8851	0.6441	0.0750 0.055427	54.95	730.67	4180900.
32 3.50 1.40 0.2		0.8700	6.9034	0.4498	0.0750 0.055430	54.98	729.67	4192000.
33 3.50 0.40 -0.3 34 3.75 0.30 0.0	9.0780 7.6320	0.8700	10.4345	0.6800	0.0750 0.055543	55.23	728.67	4219900.
35 3.77 1.50 -0.5		0.8700	8.7724 11.7586	0.5022 0.6732	0.0660 0.053050 0.0660 0.052582	61.92	739.67	4058400.
36 3.77 3.90 0.7		0.8700	9.8276	0.5626	0.0660 0.052559	61.87 61.81	739.67 73 5 .67	4012800.
37 3.77 5.00 0.1		0.8700	8.1172	0.4623	0.0660 0.052574	61.88	738.67	4009300. 4021600.
38 4.02 0.70 -0.6		and the same of the	10.7345	0.5463	0.0580 0.051391	72.74	742.67	4122800.
39-4.02 9.0 0.0	10.2600	0.8700		0.6002	0.0580 0.051364	72.81	738.67	4159900.
40 3.01 5.09 0.0	3.7700	0.8700	4.3333	0.3491	0.0930 0.055879	37.09	722.67	3741700.
41 3.01 5.00 3.0		0.8700	9.2138	0.7423	0.0939 0.055893	37.07	724:67	3725100.
42 3.01 5.00 -3.0		0.8700	7.6356	0.6151	0.0930 0.055846	37.01	724.67	3718800.
43.3.01 5.00 6.0		0.8700	,	1.1280	0.0830 0.055752	36.89	724.67	3705300.
44 3.01 5.00 -6.0 45 3.01 0.0 0.0	- : :	0.8700	6.3713	0.5133	0.0930 0.055744	36.88	724.67	3705200.
45 3.01 0.0 0.0 46 3.01 0.0 3.0	6.6020	0.8700	7.5885 8.5977	0.6113	0.0930 0.055838	37.00	724.67	3717700.
47 3.01 0.0 -3.0		0.8700	6.9736	0.6926 0.5618	0.0930 0.055788	36.93	724.67	3711100.
48 3.01 0.0 6.0		0.8700		1.2600	0.0930 0.055805	36.96 36.97	723.67 723.67	3721000.
49 3.01 0.0 -6.0		0.8700	6.0057	0.4838	0.0930 0.055968	37.23	721.67	3722500. 3762900.
50 3.01 -5.00 0.0		0.8700	7.5598	0.7412	0.1130 0.055797	36.98	722.67	3730600.
51 3.01 -5.00 3.0	9.2850		10.6724	1.0460	0.1130 0.055717	36.88	722.67	37 19900 .
52 3.01 -5.00 -3.0		0.8700			0.1130 0.055784	37.00	721.67	3739800.
	0 12.6700		14.5632		0.1130 0.085717	36.91	720.67	3738500.
54 3.01 -5.00 -6.0		0.8700			0.1130 0.055783	37.00	720.67	3747400.
55 3.01 0.0 -3.0		0.8700			0.0930 0.055874	37.08	722.67	3741000.
56 3.01 0.0 0.0 57 3.25 0.0 0.0		0.8700	7.5195		0.0930 0.055871	37.02	725.67	3712900.
57 3.25 0.0 0.0 58 3.25 0.0 -3.0		0.8700			0.0830 0.055670		731.67	3894300.
59 3.25 5.00 0.0		0.8700			0.0830 0.055860 0.0830 0.055847	45.07 45.07	734,67 733.67	3892000.
60 3.51 0.0 0.0					0.0750 0.055389	55.08	740.67	3899700. 4084500.
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GAGE: 5242 X/L=0.0400 PHI: 180.000 NRUN=106

HU/HR BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR ΡŤ RE/FT RUN MACH ALPHA 0.4349 0.052894 34.04 675.67 3783990 1.4518 1.0000 1.4518 0.6314 3,01 0.0 0.0 677.67 3757200 0.4349 0.082848 33.94 1.4371 .0000 1.4371 0.6280 3.01 0.0 0.0 637.67 4209300 0.4904 0.058067 23.14 1.5361 .0000 1.5361 0.7533 4 2.24 2.40 -0.60 4099100 0.4905 0.057880 644.67 5 2.24 2.60 0.80 1.4569 1.0000 1.4569 0.7146 22.88 1.0000 0.7322 0.4900 0.057984 22.93 648.67 4073900 1.4943 1.4943 1.80 -0.70 6 2.24 649.67 4077600 0.7134 0.4886 0.058088 23.00 0.60 -0.20 1.4601 1.0000 1.4601 2.24 1.5431 0000 1.5431 0.7387 0.4787 0.056426 26.13 649.67 4848600 3.20 -0.60 8 2.50 0.7594 4060500 1.5877 0.4783 0.056509 26.21 649.67 2.80 1.5877 0000 0.80 • 2.50 0.4763 0.056303 26.01 649.67 4031000 1.5530 0000 1.9530 0.7397 1.60 -0.70 10 2.50 1,4837 0.7064 0.4761 0.056307 26.03 648.67 4042600 1.0000 1.4837 11 2.50 1.50 0.20 0.7503 4211400 0000 1.5916 0.4714 0.055904 31.15 650.67 1.5916 12 2.75 3.80 -0.60 0.7696 0.4712 0.055578 31.03 650.67 4172900 13 2.76 3.60 1.30 1.6333 1.0000 1.6333 0.4653 0.055638 1.4573 31.07 652.67 4159500 2.76 0.90 -0.80 1.4673 0000 0.6781 14 4181900 15 2.76 9.6460 0.4630 0.055712 31.17 651.67 0.20 1.3952 .0000 1.3952 0.10 0.4335 0.052886 674.67 3792900 34.04 1,5326 . 0000 1.8326 0.6644 16 3.01 0.0 0.0 721.67 3686600 0.4485 0.055320 36.67 1.5710 .0000 1-8710 0.7046 17 3.02 4.50 -0.70 37.48 3767500 0.4486 0.055924 3.02 4.60 1.30 1.5488 . 0000 1.6488 0.6948 721.67 18 19 3.02 1.60 -0.70 1.4578 . 0000 1.4578 0.6455 0.4428 0.055518 36., 90 723.67 3694700 0.20 -0.10 1.4384 0.6287 0.4380 0.055535 36.94 722.67 3706 100 1.4354 .0000 20 3.02 3716800 0.6503 0.4370 0.056546 36.97 721.67 0.0 3.00 1.4881 .0000 1.4881 21 3.02 . 0000 1.8332 0.6700 0.4370 0.058483 36.89 721.67 3708300 -3.00 1.5332 0.0 22 3.02 0.4489 0.055576 37.01 721.67 3720800 5.00 0.0 1.5378 . 0000 1.5378 0.6903 23 3.02 0.4489 0.055598 37.04 3.00 . 0000 1.4558 0.6535 721.67 3723800 1.4558 5.00 24 3.02 0.4489 0.055538 36.96 721.67 3715700 .0000 1.5166 0.6808 1.5166 25 3.02 5.00 -3.00 0.4448 0.055976 726.67 3974400 1.4667 1.0000 1.4667 0.6524 45.05 26 3.24 4.40 -0.60 3590400 0.6515 0.4457 0.956019 45,15 725.67 1.0000 1.4617 27 3.24 5.20 1.70 1.4617 0.4377 0.056035 725.67 3992700. 0.6516 45.17 28 3.24 1.50 -0.70 1.4887 1.0000 1.4887 726.67 727.67 0.4333 0.055889 0.6070 44.91 3962100. 1.4009 .0000 1.4009 29 3.24 0.30 0.0 54.99 0.4408 0.088407 4209800. 1.4630 1.0000 1.4630 0.6449 30 3.50 4.50 -0.40 0.4419 0.055427 54.95 4180900 730.67 31 3.50 5.30 1.50 1.4614 .0000 1.4614 0.6458 0.4323 0.055430 729.67 4192000. 0.20 1.4721 .0000 1.4721 0.6364 64.98 32 3.50 1.40 4219900 .0000 1.4366 0.6153 0.4283 0.055543 55.23 728.67 0.40 -0.30 1.4366 33 3.50 0.4107 0.053050 0.30 .0000 1.4132 0.5804 61.92 739.67 4058400 1.4132 34 3.75 0.0 35 3.77 1.0000 1.4492 0.6023 0.4156 0.052582 61.87 739.67 4012800 1.4492 1.50 -0.50 0.4230 0.052559 61.81 739.67 4009300. 0.70 1.5310 1.0000 1.8310 0.6476 36 3.77 3.90 1.4971 1.0000 1.4971 0.6364 0.4251 0.052574 61.88 738.67 4021600. 37 3.77 5.00 0.10 1.0000 . 3998 0.5619 0.4014 0.051391 72.74 742.67 4122800. 1.3998 38 4.02 0.70 -0.60 738.67 4159900. 0.3982 0.051364 72.81 1.0000 1.5038 0.5988 39 4.02 0.0 0.0 1.5038 0.4498 0.055878 37.09 722.67 3741700. . 6660 0.6999 40 3.01 5.00 0.0 1.5560 1.0000 0.4497 0.055893 37.07 724.67 1.5459 0.6952 3 .01 5 3.00 1.5459 1.0000

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 96 4.00
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                                                           0.2223 0.030223
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 97 4.00
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101 4.00
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103 4.00
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104 4.00
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105 4.00
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                                                           0.3771 0.047081
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106 4.00
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                                          1.4750
                                                           0.4747 0.066420
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107 4.00
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                                                  0.7018
                                                           0.4747 0.066764-120.72
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                                                                                              6974400
GAGE= 5259 X/L=0.4730 PHI= 37.500 NRUN=106
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T STAN LINE TO P

RUN MACH ALPHA BETA HIHU+TH TUR FAC HIHU+TS HRTT/HR HU/HR PT RE/FT 3.01 0 0 0.0 2.9800 0.8700 3.4253 0.3033 0.1019 0.082894 34.04 675.67 3783900. 2 3.01 0.0 0.0 2.7900 0.8700 3.2068 0.2845 0.1019 0.052848 33.94 677.67 3757200. 4 2.24 2.40 -0.60 2.1600 0.8700 2.4828 0.3433 0.1585 0.058067 23.14 637.67 4209300. 5 2.24 2.GO 0.80 1.9200 0.8700 2.2069 0.3080 0.1585 0.057850 22.88 644.67 4099100. 6 2.24 1.80 -0.70 2.2700 0.8700 2.6092 0.3593 0.1585 0.057984 22.93 648.67 4073900 . 24 0.60 -0.20 2.2700 0.8700 2.6092 0.3600 O. 1585 O. 058088 23.00 649.67 2.50 4077600 3.20 -0.60 2,4300 0.8700 2.7931 0.3318 0.1368 0.056426 26.13 649.67 4048600

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9 2,50	2.80 0.80	2.4300	0.8700	2.7931	0.3322	Q.1368 Q.056509	26.21	649.67	4060500.
10 2.50	1,60 -0.70	2.4600	0.8700	2,8276	0.3366	0.1368 0.066303	26,01	649,67	4031000
11 2.50	1.50 0.20	2.3900	0.8700	2.7471	0.3268	0.1368 0.056307	26.03	648.67	4042690
12 2 75	3.80 -0.60	2 5800	0.8700	2.8655	ស. ១០១៤	0.1200 0.055904	31.15	650.67	4211400
13 2 76	3.60 1.30	2,6500	0.8700	3,0460	0.3184	0.1200 0.055575	31.03	650.67	
14 2 76	0.80 -0.80	3.4900	0.8700	4.0115	0.4185	0.1200 0.055639	31.07	652.67	4172900.
16 2.76	0.20 0.10	2.8600	0.8700	3.2874	0.3428	0.1200 0.055712	31,17		4159500,
16 3.01	0.0 0.0	3.3000	0.8700	3.7931	0.3336	0.1012 0.052886	_	661.67	4181800.
17 3.02	4.50 =0.70	2.4900	0.8700		0.2551		34,04	674.67	3792900.
18 3 02	4.60 1.30	2.3900		2,8621		0.1024 0.055320	36.67	721.67	3686600
19 3 02			0.8700	2.7471	0.2447	0.1024 0.056924	37.48	721.67	3767600.
		2,7800	0.8700	3, 1954	0.2843	0.1024 0.096518	36.90	723.67	3694700.
20 3 02	0.20 .0.10	2,8300	0.8700	3.2529	0.2900	0.1024 0.058535	36.94	722.67	3706100.
21 3.02	0.0 3.00	2.7400	0.8700	3,1481	0.3033	0.1106 0.066646	36.97	721.G7	37 16800
22 3.02	0.0 -3.00	2.9300	0.8700	3.3678	0.3000	0.1024 0.055483	36.89	721.G7	3708300.
23 3.02	5.00 0.0	2.4400	0.8700	2.8046	0.2503	0.1024 0 065576	37.01	721.67	3720800.
24 3.02	5.00 3.00	2.0900	0.8700	2,4023	0.2142	0.1024 0 035598	37.04	721.67	3723800.
25 3.02	5.00 °3.00	2.6400	0.8700	3.0346	0.2699	0.1024 0.055538	36.96	721.67	3715700.
26 3.24	4.40 -0.60	2.8800	0.8700	3.3103	0.2662	0.0923 0.095876	48.05	726.67	3974400
27 3.24	5.20 1.70	2.6600	0.8700	3.0575	0.2492	0.0923 0.056019	45.19	725.67	3990400.
28 3.24	1.50 -0.70	3.0200	0.8700	3.4713	0.2789	0.0923 0.056035	45.17	725.67	3992700
29 3.24	0.30 0.0	2.9900	0.8700	3.3308	0.2719	0.0923 0.059889	44.91	726.67	3962100.
30 3.50	4.50 -0.40	3.0500	0.8700	3.5057	0.2533	0.0831 0.055407	54.99	727.67	
31 3.50	5.30 1.50	2.2700	0.8700	2.6092	0.1884	0.0831 0.055427	54 95		4209800.
32 3.50	1.40 0.20	2.7700	0.8700	3.1839	0.2300			730.67	4180900
33 3.50	0.40 -0.30	3.1300	0.8700			0.0831 0.055430	54.98	729.67	4192000.
34 3.75	0.30 0.0	2.9700		3.5977	0.2598	0.0831 0.055543	55.23	728.67	4219900.
35 3.77		0.9986	0.8700	3.4138	0.2173	0.0731 0.053050	61.92	739.67	4058400.
			0.8700	1.1478	0.0730	0.0731 0.052582	61.87	739.67	4012800
36 3.77	3.90 0.70	2.5300	0.8700	2.9080	0.1846	0.0731 0.052559	61.81	739.67	4009300.
37 3.77	5.00 0.10	3.2500	0.8700	3.7396	0.2116	0.0731 0.052574	61.88	738.67	4021600.
38 4.02	0.70 0.60	1.4547	0.8700	1.6721	0.0947	0.0651 0.051391	72.74	742.67	41-22800.
39 4.02	0.0	1.6574	0.8700	1.9051	0.1079	0.0651 0.051364	72.81	738.67	4159900.
40 3.01	5.00 O.U	2.7600	0.8700	3.1724	0.2827	0.1026 0.055879	37.09	722.67	3741700.
41 3.01	5.00 3.00	2.4100	0.8700	2.7701	0.2477	0.1026 0.055893	37.07	724.67	3725100
42 3.01	5.00 -3.00	3.0800	0.8700	3.5402	0.3158	0.1026 0.055846	37.01	724.67	3718800.
43 3.01	5.00 6.00	3.0100	0.8700	3.4598	0.3087	0.1026 0.055752	36 89	724.67	3706300
44 3.01	5.00 -6.00	2.8800	0.8700	3.3103	0.2956	0.1026 0.055744	36.88	724.67	3705200
45 3.01	0.0 0.0	3.1000	0.8700	3.5632	0.3180	0.1026 0.055838	37.00	724.67	
46 3.01	0.0 3.00	3.2300	0.8700	3.7126	0.3584	0.1108 0.055788			3717700
47 3.01	0.0 -3.00	3.0600	0.8700	3.5172	0.3135		36.93	724.67	3711100.
48 3.01	0 0 6.00	2.8600	0.8700			0.1026 0.055794	36.96	723.67	3721000.
49 3.01	0.0 -6.00	2.9300		3.2874	0.3283	0.1182 0.055805	36.97	723.67	3722500.
	,		0.8700	3.3678	0.3297	0.1126 0.055968	37.23	721.67	3762900.
		3.6200	0.8700	4.1609	0.4325	0.1196 0.055797	36.98	722.67	3730600.
	-5.00 3.00	2.8500	0.8700	3.2759	O.366B	0.1289 0.055717	36.88	722.67	3719900.
	-5.00 -3.00	3.2800	0.8700	3.7701	0.3665	0.1119 0.055794	37.00	721.67	3739500.
	-5.00 6.00	2.9900	0.8700	3.4368	0.4165	0.1393 0.055717	36.91	720.67	3738500.
	-5.00 -6.00	3.0800	0.8700	3.5402	0.3163	0 1026 0 055783	37.00	720.67	3747400.
55 3.01	0.0 -3.00	2.9500	0.8700	3.3908	0.3025	0.1026 0.055874	37.08	722.67	3741000.
56 3.01	0.0 0.0	3.0700	0.8700	3.5287	0.3147	0.1026 0.055871	37.02	725.67	3712900.
57 3.25	0.0 0.0	3.4000	0.8,700	3.9080	0.3435	0.0923 0.055670	44.83	731.67	3894300.
58 3.25	0.0 -3.00	3 2900	0.8700	3.7816	0.3035	0.0923 0.055860	45.07	734.67	3892000
59 3.25	5.00 0.0	2.6500	0.8700	3.0460	0.2448	0.0923 0.055847	45.07	733.67	3899700.
60 3.51	0.0 0.0	3.3300	0.8700	3.8276	0.2759	0.0829 0.055389	55.08	740.67	4084500
61 3.51	1.40 -0.20	3.1600	0.8700	3.6552	0.2640	0.0829 0.055442	55.16	741.67	4082200
62 3.51	0.0 -3.00	3.3800	0.8700	3.8851	0.2789	0.0829 0.055339	55.03	738 67	4097500
63 3.51	5.00 0.0	2.9700	0.8700	3.4138	0.2460	0.0829 0.055354	55.11	736.67	4120500
64 3.76	0.0 0.0	3.4200	0.8700	3.9310	0.2497	0.0731 0.052913	61.97	744.67	
65 3.76	0.0 -3.00	3.4600	0.8700	3.9770	0.2530	0.0731 0.052842			4000200.
66 3.76	5.00 0.0	3.2000	0.8700	3.6782	0.2340	0.0731 0.052947	61.98	746.67	3984700.
67 3.76	1.50 -0.50	3.2500	0.8700				61.94	748.67	3965800.
68 4.04	0.0 0.0	3.4800		3.7356	0.2376	0.0731 0.052832	61.90	740.67	4027900.
			0.8700	4.0000	0.2268	0.0651 0.050999	72.84	742.67	4086300
69 4.04	5.00 0.0	3.3200	0.8700	3.8161	0.2160	0.0651 0.050913	72.73	738.67	4113400.
70 4.04	5.00 3.00	2.6900	0.8700	3.0920	0.1750	0.0650 0.050948	72.87	737.67	4129500.
71 4.04	5.00 -3.00	3.0400	0.8700	3.4943	0.1977	0.0651 0.050922	72.76	738.57	4114900.
72 4.04	5.00 6.00	2.3800	0.8700	2.7356	0.1549	0.0651 0.050957	72.86	738.67	4120600.
73 4.04	5.00 -6.00	3.4100	C.8700	3.9195	0.2220	0.0651 0.050925	72.73	739.67	4105000.
74 4 04	0 0 3.00	3.7100	0.8700	4.2644	0.2674	0.0721 0.050994	72.90	740.67	4106000.
75 4.04	0.0 6.00	3.0700	0.8700	3.5287	0.2437	0.0795 0.050966	72.85	739.67	4111700.
76 4.04	0.0 -6.00	3.4600	0.8700	3.9770	0.2250	0.0651 0.050957	72.82	739.67	4110200
77 4.04	0.0 -3.00	3.5000	0.8700	4.0230	0.2279	0.0651 0.050963	72.84	739.67	4111200.
78 4.04		3.8400	0.8700	4.4138	0.3108	0.0809 0.050947	72.80	739.67	4108600
79 4.04	~6.00 3.00	2.8600	0.8700	3.2874	0.2584	0.0905 0.050973	72.87	739.67	4112800.
	-5.00 -3.00	2.4000	0.8700	2.7586	0.1751	0 0731 0.050966	72.85	739 67	4111700.
81 4.04		3.2600	0.8700	3.7471	0.3302	0.1013 0.051001	72.95	739.67	
	-5.00 -6.00	3,1300	0.8700	3.5977	0.2040	0.0651 0.050957	72.82		4117400.
83 4.04	0.0 0.0	3.4300	0.8700	3.9425	0.2236	0.0651 0.050972		739.67	4110200.
84 4.04	0.0 0.0	3.4800	0.8700	4.0000	0.2265		72.83	740.67	4102400.
85 3.01						0.0651 0.050975	72.81	741.67	4092500.
JJ 9.91	0.0 0.0	5.8400	0 8700	6.7126	0.3799	0.0651 0.065521	52.01	683.67	5684000.

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0.0768 0.089275 174.62 1438.70 0.0639 0.089267 174.48 1438.70
                       2.2800 0.8700
                                        2.6207
                                                 0.1732
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86 4.00
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87 4.00
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          Q, Q
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                                                  Q. 1721
                                                          0.0757 0.089307 174.58 1440.70
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88 4.00
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89 4.00
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91 4.00
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92 4.00
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93 4.00
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96 4.00
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97 4.00
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100 4.00
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                                                           0.0619 0.047091
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101 4.00
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                                                           0.0768 0.047126
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102 4.00
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103 4.00 -5.00
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104 4.00
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105 4.00
          0.70 -0.60
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                                         3.2069
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                                                           0.0778 0.066420 119.54
                                                                                     737.6/
                                                                                              6920200.
106 4.00
                                         3.1609
                                                  0.2141
                                                           0.0778 0.066764 120.72
                                                                                     738.67
                                                                                              6974400.
          0.70 -0.60
                       2.7500
                                0.8700
107 4.00
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GAGE = 5260 X/L=0.4710 PHI= 35.000 NRUN=106

The state of the s

GAGE 5260	(/L≂O.4710) PHI= 39	.000 NRL	JN= 106					
RUN MACH ALF	PHA BÉTA	HIHU+TH	TUR FAC	H1HU+TS	HRTT/HR	HU/HR HR	ÞΤ	TT	RE/FT
1 3.01 0.		1.9462	0.8700	2.2370	0.2282	0.1020 0 052894	34.04	675.67	3783900.
2 3.01 0.		1.8253	0.8700	2.0980	0.2140	0.1020 0.052848	33.94	677.67	3757200.
	40 -0.60	2.0628	0.8700	2 3710	0.2418	0.1020 0.058067	23.14	637.67	4209300.
	60 0.80	1.3137	0.8700	1.5100	0.2401	0.1590 0.057850	22.88	644.67	4099100.
	80 -0.70	1.4312	0.8700	1.6451	0.2615	0.1590 0.057984	22.93	648.67	4073900
	60 -0.20	1.3459	0.8700	1.5470	0.2460	0.1590 0.058088	23.00	649.67	4077600.
	20 -0 60	1.3485	0.8700	1.5500	0.2464	0.1590 0.056426	26.13	649.G7	4048600.
	80 0.80	1.5730	0.8700	1.8080	0.2477	0.1370 0.016509	26.21	649.67	4060500
	60 -0.70	1.5338	0.8700	1.7630	0.2415	0.1370 0.056303	26.01	649.67	4031000
	.50 0.20	1.4825	0.8700	1.7040	0.2334	0.1370 0.056307	26.03	648.67	4042600.
	.80 -0.60	1.5182	0.8700	1.7451	0.2390	0.1370 0.055904	31,15	650.67	4211400.
	.60 1.30	1.8401	0.8700	2.1151	0.2538	0.1200 0.055575	31.03	650.67	4172900.
	.90 -0.80	2.0915	0.8700	2.4040	0.2885	0.1200 0.055639	31.07	652 67	4159500.
	.20 0.10	1 8949	0.8700	2.1780	0.2614	0.1200 0.055712	31.17	651.67	4181900
	.0 0.0	2.0271	0.8700	2.3300	0.2353	0.1010 0.052886	34 04	674.67	3792900.
	.50 -0 70	1.7339	0.8700	1.9930		0.1030 0.055320	36.67	721.67	3686600.
	.60 1.30	1.6835	0.8700	1.9351	0.1993	0.1030 0.055924	37.48	721.67	3767500.
	.60 -0.70		0.8700	3.2040	0.2270	0.1030 0.055518	36.90	723.67	3694700
	.20 -0.10	1.9027	0.8700	2.1870		0.1030 0.055535	36.94	722.67	3706100.
	.0 3.00		0.8700	2.0120	0.2213	0.1100 0.055546	36.97	721.67	3716800
	.0 -3.00		0.8700	2.26 iO		0.1030 0.055483	36.89	721.67	3708300
	.00 0.0	1.7165	0.8700	1.9730		0.1030 0.055576	37.01	721.67	3720800.
	.00 3.00		0.8700	1.9100		0.1030 0.055598	37.04	721.67	3723800
	.00 -3.00		0.8700		-	0.1030 0.055538	36 96	721 67	3715700
	.40 -0.60		0.8700			0.0920 0.055976	45.05	726.67	3974400
			0.8700			0.0920 0.056019	45.15	725.67	3990400.
	.20 1.70 .50 -0.70		0.8700			0.0920 0.056035	45.17	725.67	3992700.
	.30 -0.70	1.8609	0.8700			0.0920 0.055889	44.91	726.67	3962100.
	.50 -0.40		0.8700			0.0830 0.055407	54.99	727.67	4209800
-			0.8700			0.0830 0.055427	54.95	730.67	4180900
			0.8700			0.0830 0.055430	54.98	729.67	4192000.
	.40 0.20 .40 -0.30		0.8700			0.0830 0.055543	55.23	728.67	4219900
			0.8700			0.0730 0.053050	61.92	739.67	4058400
	.50 0.0	2.0602 2.9354	0.8700			0.0730 0.053030	61.87	739.67	4012800
	.50 -0.50					0.0731 0.052559	61.81	739.67	4009300
	90 0.70					0.0731 0.052574	61.88	738.67	4021600
	.00 0.10						72.74	742.67	4122800.
	.70 -0.60					0.0651 0.051391	72.81	738.67	4159900
	0.0	2.3708						722.67	3741700.
	0.00	1.7818				0.1030 0.055879	37.09	724.67	3725100
	0.00 3.00					0.1030 0.055893	37.07	724.67	3718800.
-	3.00 -3.00					O. 1030 O. 055846	37.01 36.89	724.67	3706300
	.00 6.00					0.1030 0.055752			
	.00 -6.00					0.1030 0.055744	36.88	724.67	3705200.
-	0.0	1.8862				0.1030 0.055838	37.00	724.67	3717700.
	0.0					0.1100 0.055788	36.93	724.67	3711100.
	0.0 -3.00					0.1030 0.055794	36.96	723.67	3721000.
	0.0					G. 1170 G.055805	36.97	723.67	3722500.
	.O -6.CC					0.1030 0.055968	37.23	721.67	3762900
	3.00 D.O	1.9801				0.1200 0.055797	36.98	722.67	3730600
	5.00 3.00					0.1290 0.055717	36.88	722.67	3719900
52 3.01 -5	5.00 -3.00	2.0236	0.8700	2.3260	0.2628	0,1130 0.055794	37.00	721.67	3739500

TABLE VI (Concluded)

			~5.00		1,6382	0.8700	1.8830	0.2618	0.1390	0.055717	36.91	720.67	3738500.
54			-5.00	~6 . OO	1.8427	0.8700	2,1180	0.2482		0.055783	37.00	720.67	
		. Ω1	0.0	~3 . OO	1,9105	0.8700	2,1960	0.2262		0.055874	37,08	722.67	3747400.
		01	$O \cdot O$	$\Omega \cdot \Omega$	1.8495	0.8700	2.1190	0.2183		0.055871	37.02	725.67	3741000,
57	3	. 25	$\mathbf{G} \cdot \mathbf{O}$	0.0	2.0384	0.8700	2,3430	0.2156		0.095670	44.83	731.67	3712900,
58	3	. 25	\mathbf{O} , \mathbf{O}	~3.00	2,2716	0.8700	2.6110	0.2402		0.055860	45.67	734.67	3894300.
59	3	, 25	5.00	0.0	1.8609	0.8700	2.1390	0 1966		0.055847	45.07		3892000.
60	3	. 54	\mathbf{v} . 0	0.0	2.0367	0.8700	2,3410	0.1943		0.055389	55.08	733.67	3899700,
61	3	. ធ ។	1.40	°0.20	1,9671	0.8700	2.2610	0.1877		0.055442	65.16	740,67	408450Q.
-65	3	. 54	0,0	~3.00	2.3473	0.8700	2.6980	0.2239		0.056339		741,67	4082200.
63	3	. 6.1	5.00	0.0	2.0663	0.8700	2.3751	0.1971		0.055354	55 . O3	738.67	4097500.
64	3	.76	0.0	5.0	2.1472	0.8700	2.4680	0.1802		0.052913	55.11	736.67	4120500.
65	3.	.76	$Q \cdot Q$	-3.00	2.5639	0.8700	2.9470	0.2151		0.052942	61.97	744.67	4000200.
66	3	76	5 00	0.0	2 2724	0 8700	2.6120	0.1907			61.98	746.67	3984700.
67	3.	.76	1.50	0.50	2 1098	0.8700	2.4251	0 1770		0.052947	61,94	748.67	3965800.
		.04	0.0	0.0	2.4029	0.8700	2.7620	0.1795		0.052832	61.90	740.67	4027900
69	4	.04	5.00	0.0	2.4491	0.8700	3.8151	0.1830		0.050999	72.84	742.67	4086300
		.04	5.00	3.00	2.0663	0.8700	2.3751	0.1544		0.050913	72.73	738.67	4113400
		.04	5.00	3.00	2.2368	0.8700	2.5710			0.050948	72.87	737.67	4129500
		04	5.00	6.00	1.8287	0.8700	2.1020	0.1671 0.1366		0.050922	72.76	738.67	4114900.
73		.04	5.00	-6.00	2 5039	0.8700	2.8780	0.1871		0.050957	72.86	738.67	4120600.
74		.04	0.0	3.00	2.3360	0.8700	2.6851	_		0.050925	72.73	739.67	4105000
		.04	0.0	6.00	2.0080	0.8700	2.3080	0.1933 0.1823		0.050994	72.90	740.G7	4106000.
76		04	0.0	-6.00	2.5204	0.8700	2.8970	0.1883		0.050966	72.85	739.67	4111700.
77		04	0.0	-3.00	2.5682	0.8700	2.9520	0.1919		0.050957	72.82	739.67	4110200.
		04	-5.00	0.0	2.6196	0.8700	3.0110	0.1919		0.050963	72.84	739.67	4111200.
79		04	-5.00	3.00	1.8166	0.8700	2.0880			0.050947	72.80	739.67	4108600.
80			-5.00	-3.00	2.5274	0.8700	2.9051	0.1900		0.050973	72.87	739.67	4112800.
81			-5.00	6.00	1.9454	0.8700	2.2361	0.2150		0.050966	72.85	739.67	4111700.
82			-5.00	-6.00	2.5300	0.8700	2.9080	0.2258		0.051001	72.95	739.67	4117400.
83		04	0.0	0.0	2.3586	0.8700	2.7110	0.1890		0.050957	72.82	739.67	4110200.
84		0.4	0.0	0.0	2.3342	0.8700		0.1762		0.050972	72.83	740.67	4102400.
		01	0.0	0.0	1.7757	0.8700	2.6830	0.1744		0.050975	72.81	741.67	4092500.
86		.00	0.0	0.0	2.1219		2.0410	0.2388		0.065521	52.01	683.67	5684000.
		00	0.0	3.00	2.0680	0.8700	2.4390	0.1854			174.52	1438.70	3643600.
88		00	0.0	-3.00	2.1741	0.8700	2.3770	0.1997			174.48	1438.70	3642900.
		00	5.00	0.0	1.6626	0.8700	2.4990	0.1899		0.089307		1440.70	3637100.
90			5.00	3.00	2.0254	0.8700	1.9110	0.1452		0.089162		1437.70	3639000.
91		00	5.00	-3.00	1.9601	0.8700	2.3280	0.1769			174.70	1438.70	3647500.
92			-5.00	0.0	2.1733	0.8700	2.2530	0.1712	0.0760	0.089307	174.61	1439.70	3641600.
95			-5.00	3.00	1.9566	0.8700	2.4980	0.2346	0.0940	0.089259	174.42	1439.70	3637700.
94			-5.00	-3.00	2.0254	0.8700-		0.2361	0.1050	0.089244	174 30	1441.70	3627400.
95		00	0.0	0.0		0.8700	2.3280	0.1979		0.089260		1442.70	3624100.
		00	0.70	-0.60	2.1593 2.6613	0.8700	2.4820	0.1886		0.089292		1441.70	3631300.
97			0.0	0.0	2.1158	0.8700	3.0590	0.1132	0.0370	0.030223	20.16	1428.70	423840.
98		00	0.0	0.0		0.8700	2.4320	0.1775	0.0730	0.078417		1245.70	3651900.
99			0.0		2.2185	0.8700	2.5500	0.1836			120.00	1051.70	4033000.
100			0.0	0.0	2.2559 2.5830	0.8700	2.5930	0.1789		0.064521	102.46	982.67	3816300.
101		00	5.00	0.0		0.8700	2.9690	0.1841		0.047013	60.24	728.67	3544500.
			-5.00	0.0	2.4978	0.8700	2.8710	0.1780		0.047091	60.21	736.67	3484200.
			-5.00		2.4699	0.8700	2.8390	0.2186		0.047126	60.26	737.67	3480500.
104				3.00	1.8957	0.8700	2.1790	0.1874		0.047199	60.45	737.67	3491300.
105				-3.00	2.5482	0.8700	2.9290	0.2050		0.047128	60.33	735.67	3498600.
105			0.0	0.0	2.5392	0.8700	2.9186	0.2522		0.047081	60.24	134.67	3500500
107				-0.60	2.4282	0.8700	2.7910	0.2177			119.54	737.67	6920200.
107	ч.	UU	0.70	~Q.60	2.5334	0.8700	2.9120	0.2271	0.0780	0.066764	120 72	720 67	6071100

Figure 1. Axis systems,

indicated by arrows

C. IT TO SEE THE PARTY OF THE P

cf gravity

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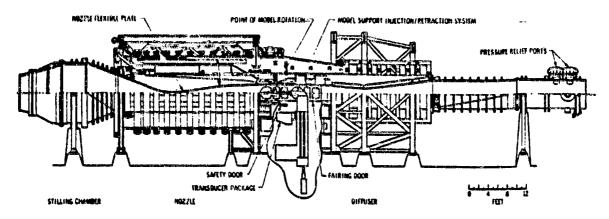
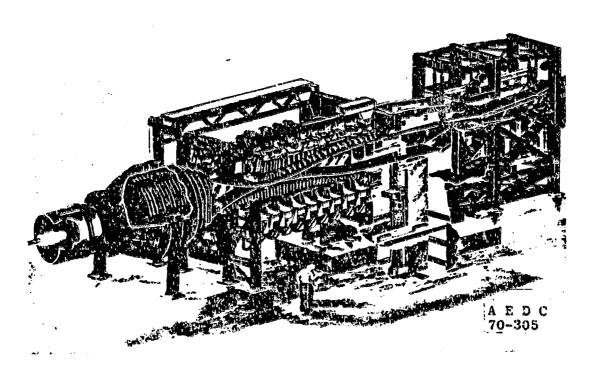
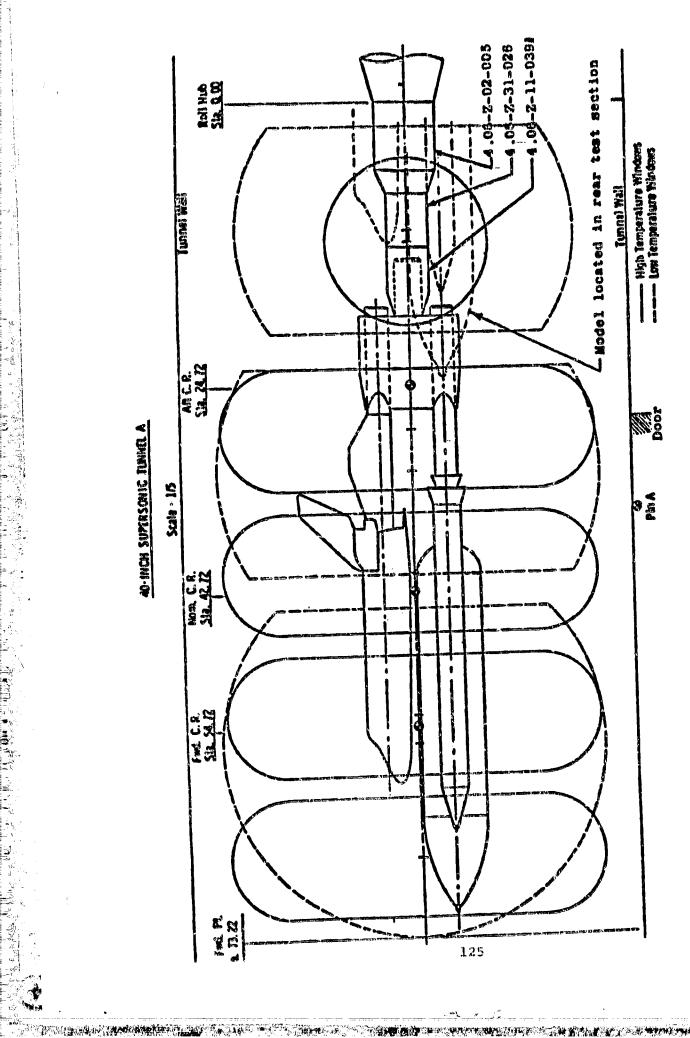


Figure 2.a Tunnel assembly



Tunnel test section Figure 2.b Tunnel A



Installation Sketch Figure 2.c

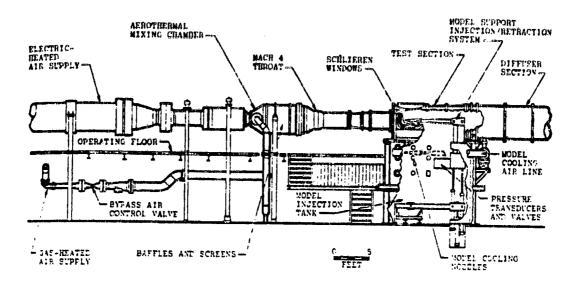


Figure 2.d Tunnel Assembly

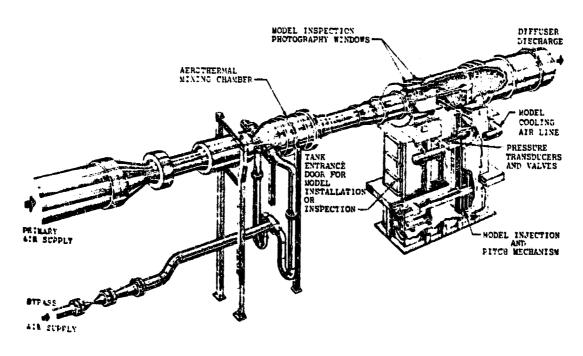
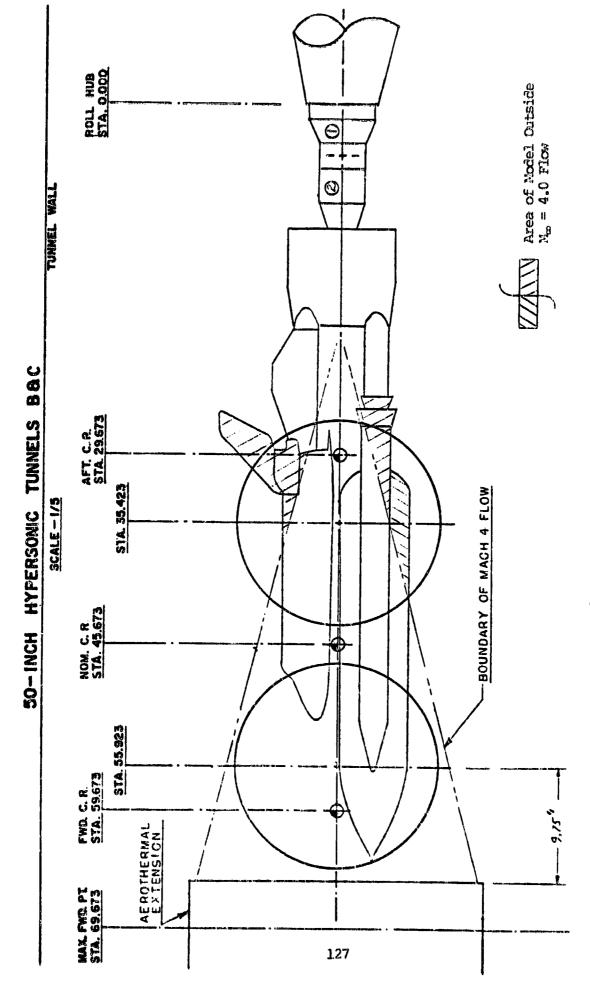
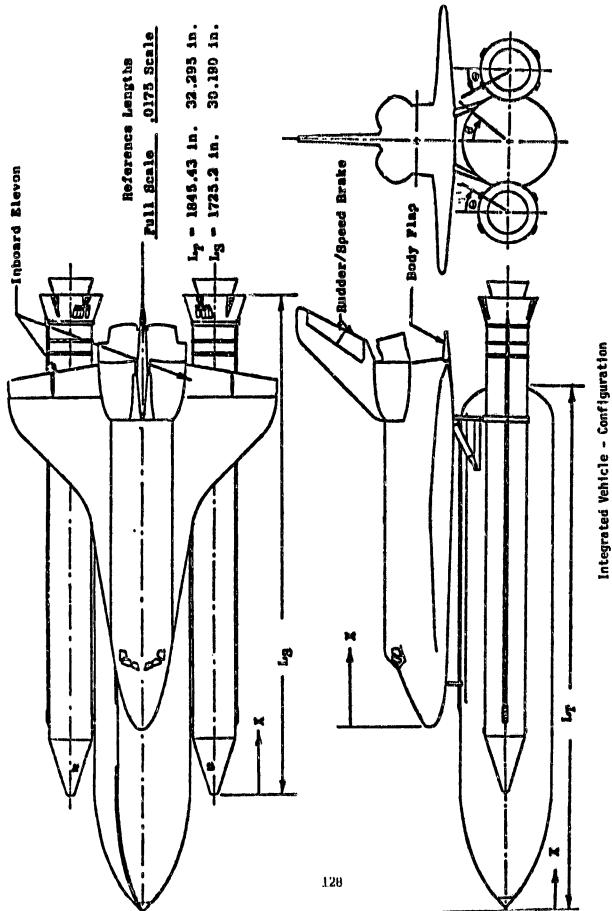


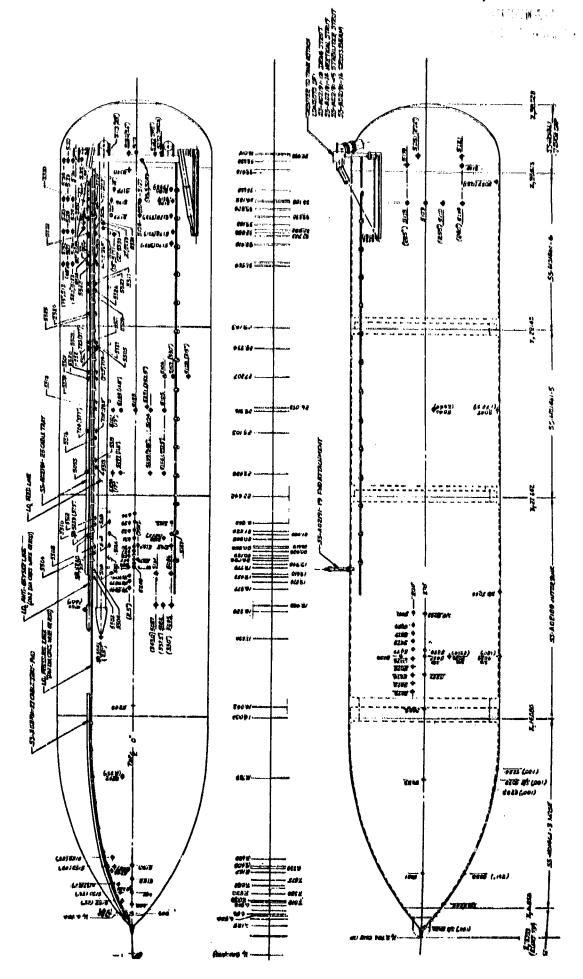
Figure 2.e Perspective of Tunnel Test Section Area
Tunnel C Mach 4.0 Configuration



f. Sketch of Installation Figure 2 Concluded



Integrated Vehicle - Configuration Figure 3. The 60-015 Integrated Space Shuttle Vehicle



Composite Figure 4.a External Tank Instrumentation

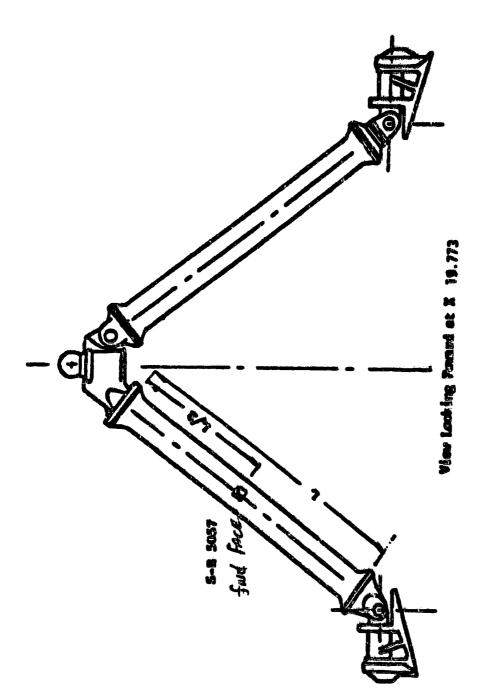


Figure 4.b Forward Orbiter/ET Attach Structure Instrumentation Location

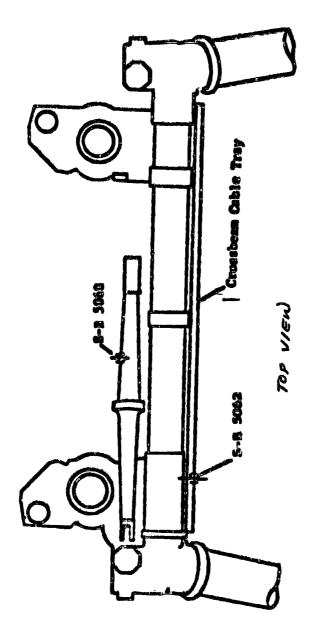


Figure 4.c Aft Orbiter/ET Attach Structure Instrumentation Location

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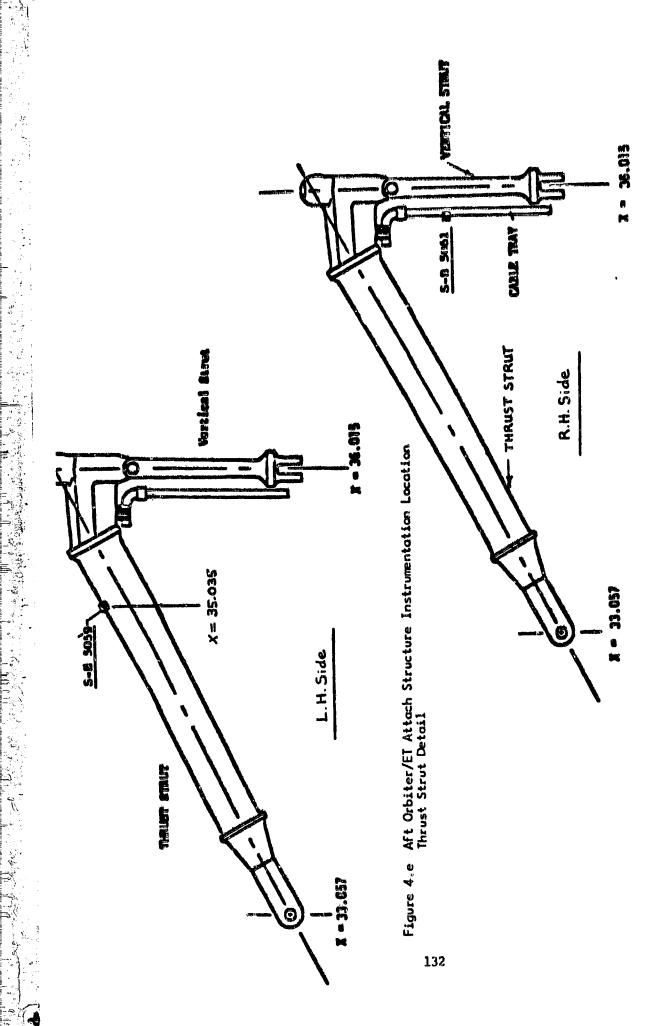


Figure 4.d Aft Orbiter/ET Attach Structure Instrumentation Location Vertical Strut Cable Troy Detail

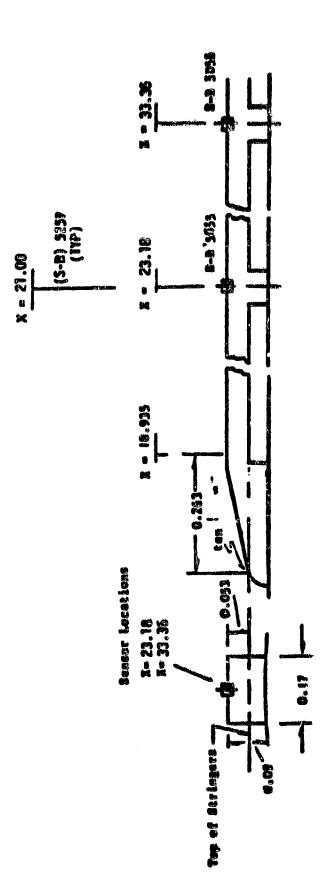


Figure 4f. External Tank Protuberance Instrumentation LH2 Cable Tray Detail

Figure 5.a SRB Instrumentation R/H

'n

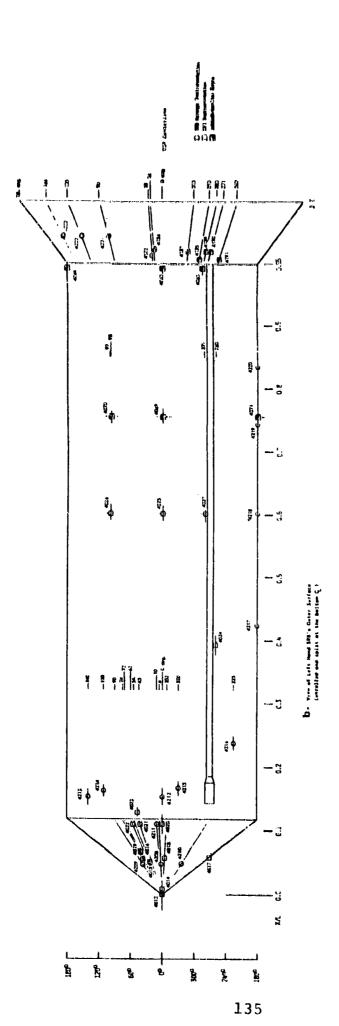
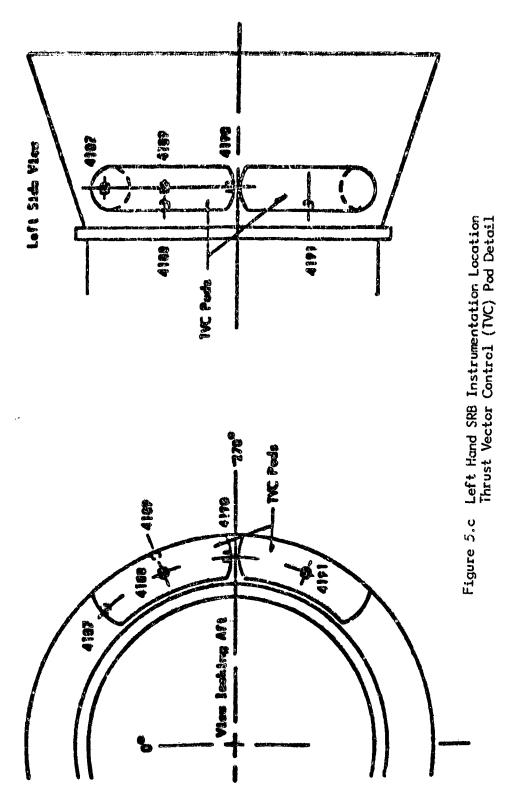


Figure 5.b SRB Instrumentation L/H



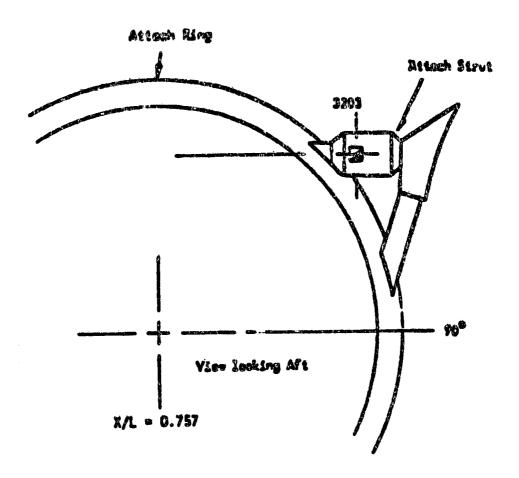


Figure 5.d. Right-Hund SRB Instrumentation Location SRB/ET Aft Attach Strut Detail

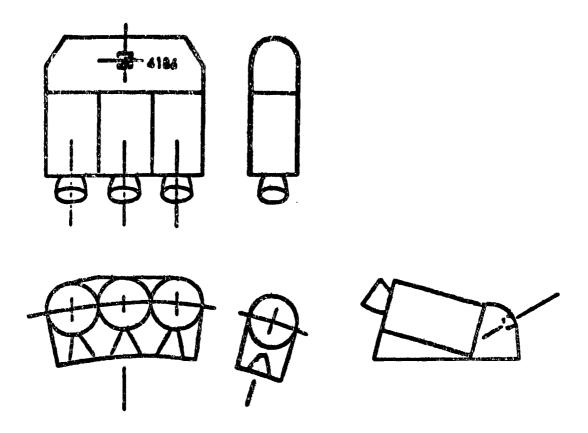
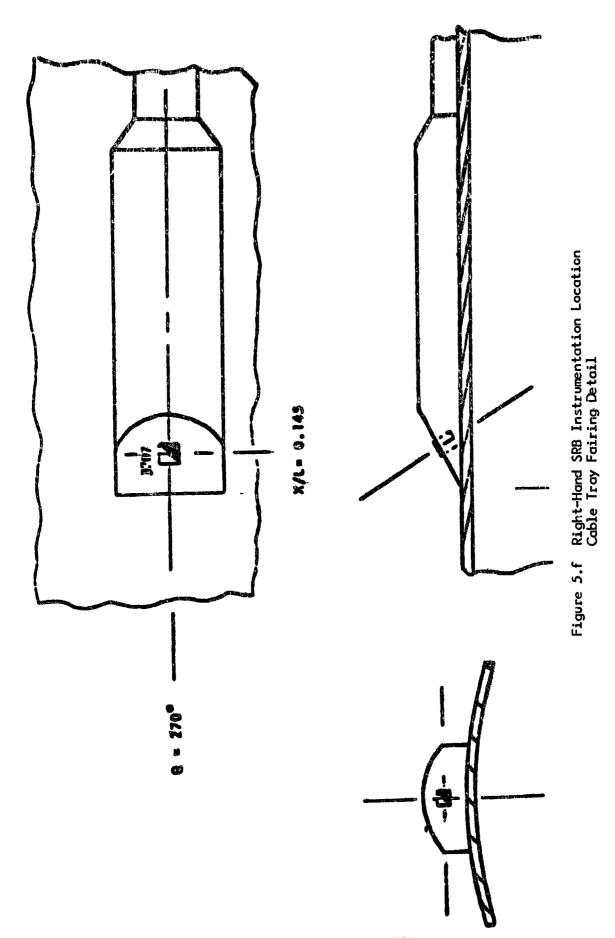


Figure 5.e Left-Hand SRB Instrumentation Location Aft Separation Motor Detail



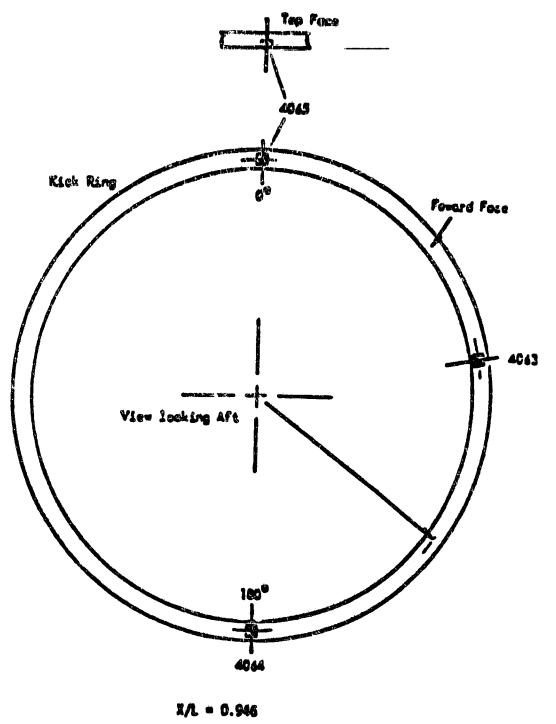


Figure 5.g Left-Hand SRB Instrumentation Location Kick Ring Detail

Figure 5.h Right-Hand SRB Instrumentation Location Kick Ring Detail

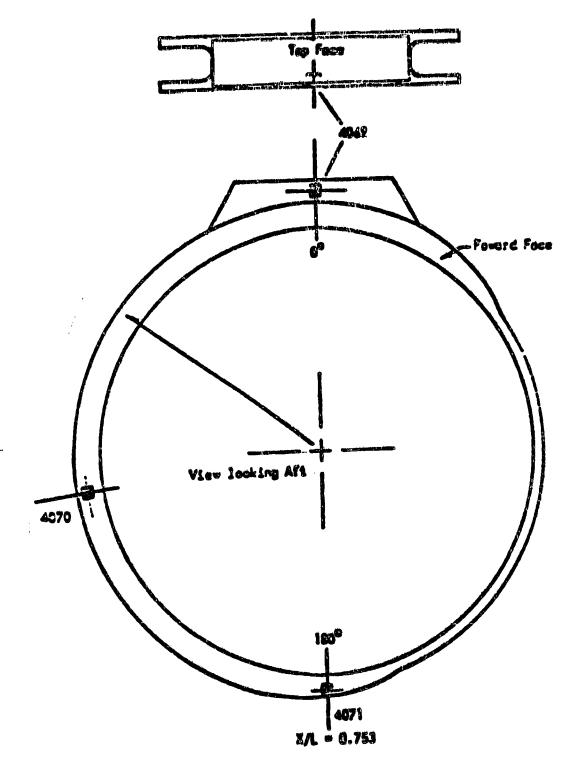


Figure 5.i Left-Hand SRB Instrumentation Location Attach Ring Detail

FIGURE & TRANSITION STRIP LOCATION

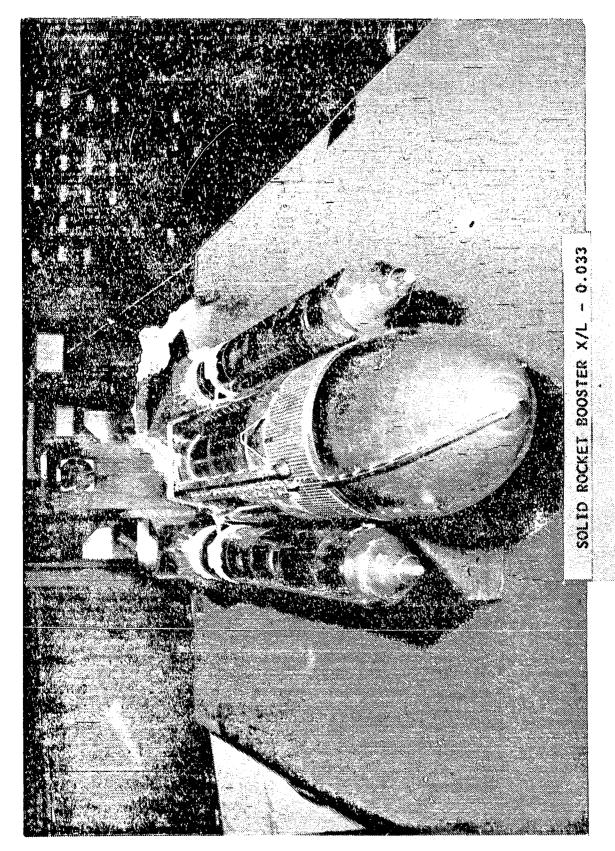
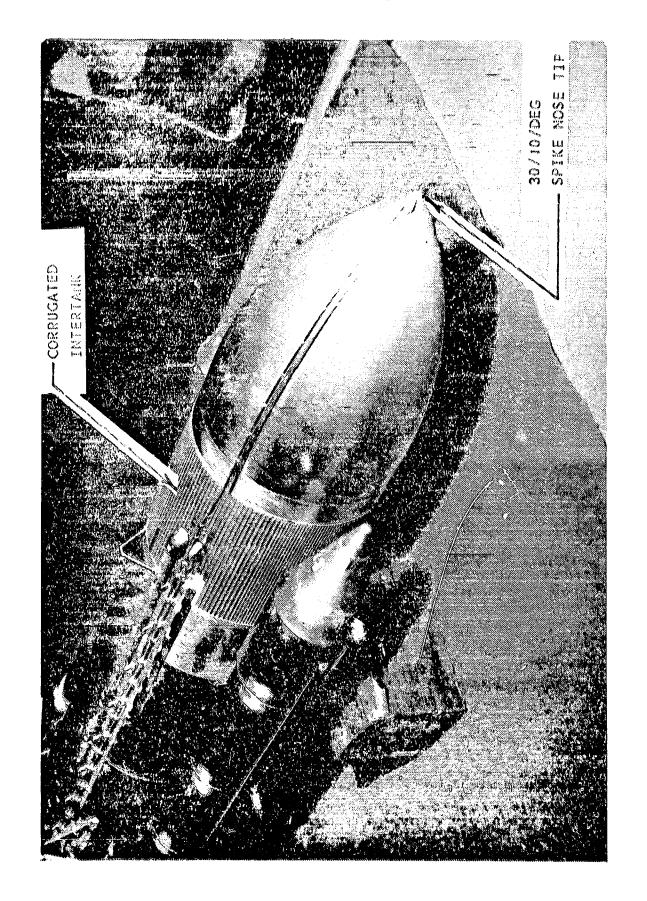


FIGURE 62TRANSITION STRIP LOCATION



INSTALLATION PHOTOGRAPH



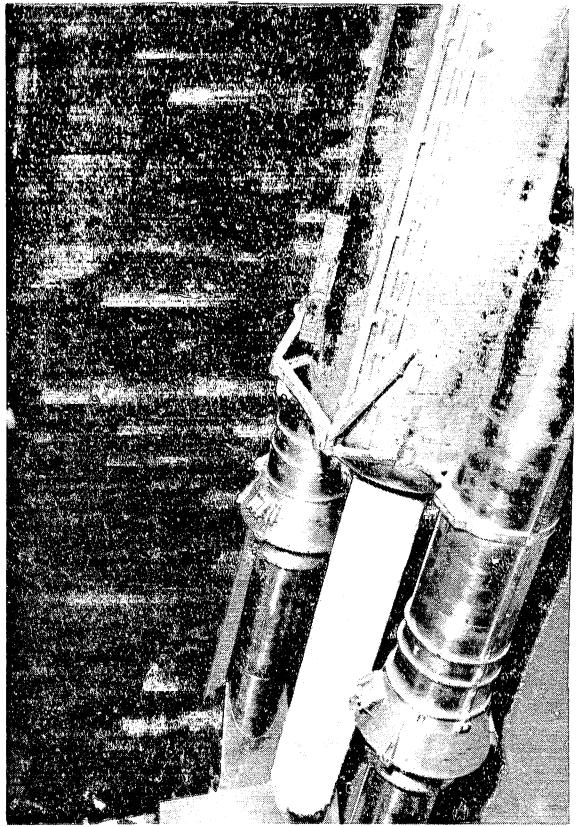
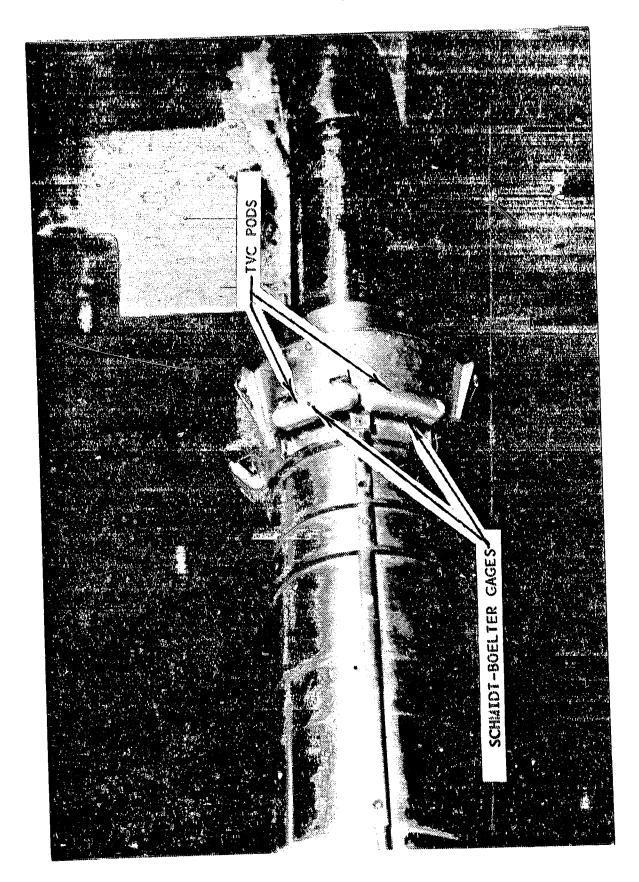
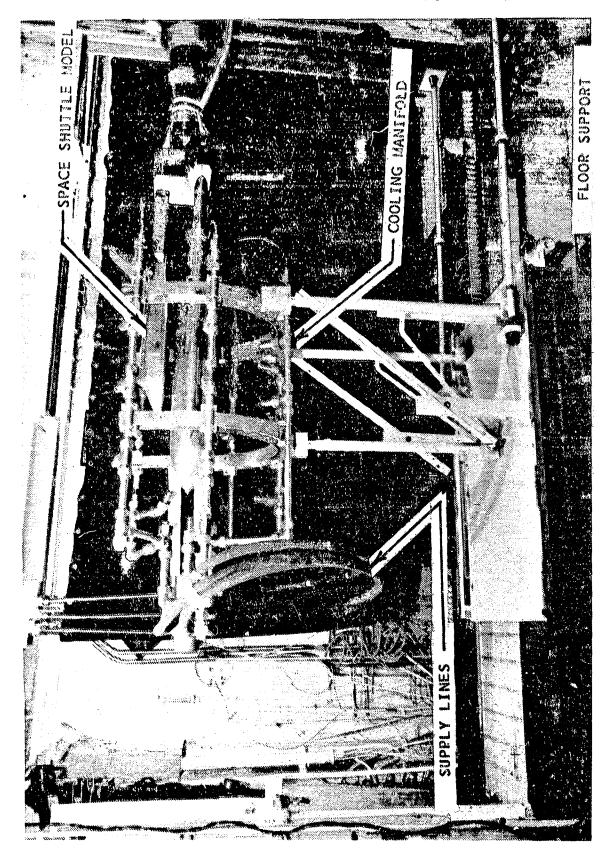
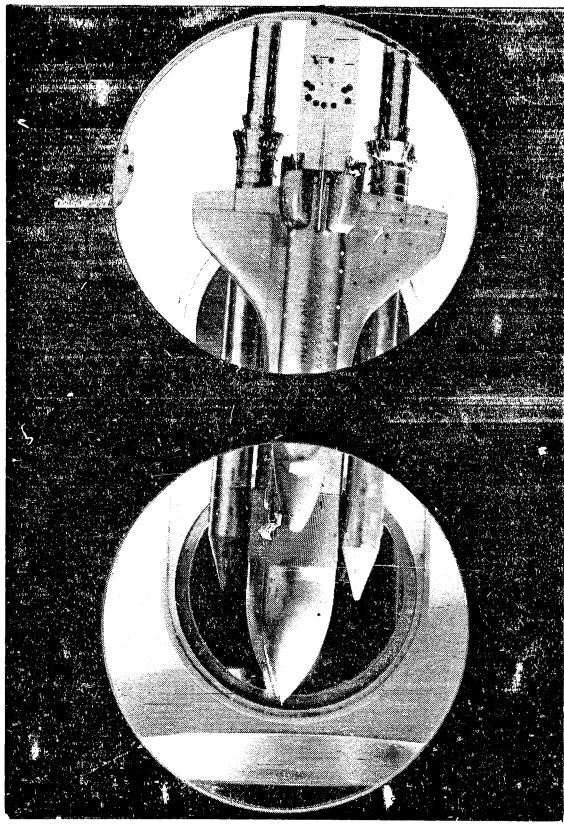


FIGURE & AFT FEATURES - EXTERNAL TANK AND SPR's

ORIGINAL PAGE IN OF POOR QUALITY







FIGURE

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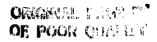




Figure 6j. Left-hand SRB Thrust Vector Control (TVC) Pod Detail and Instrumentation Location,

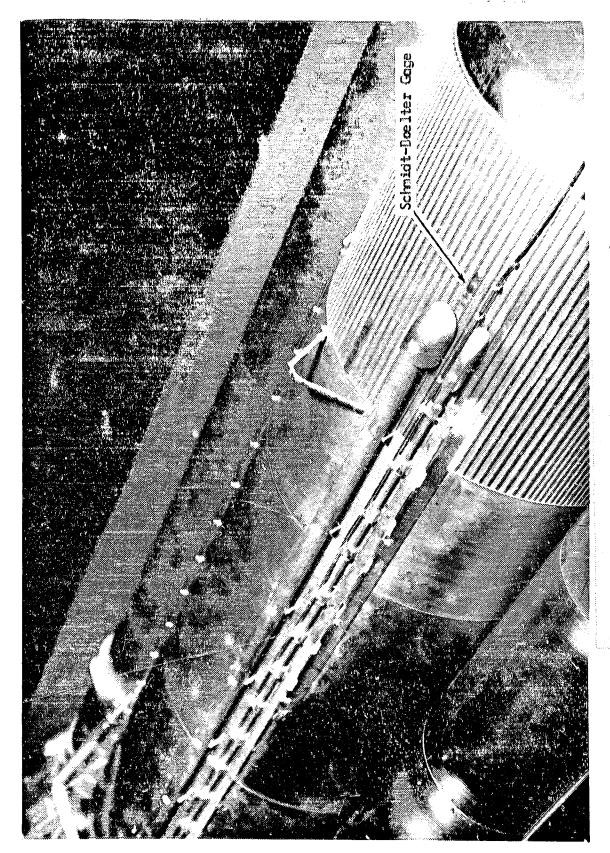


Figure 6k. ET Protuberance and Inter-Tank Detail



Figure 61. ET Protuberance, Inter-Tank and Instrumentation



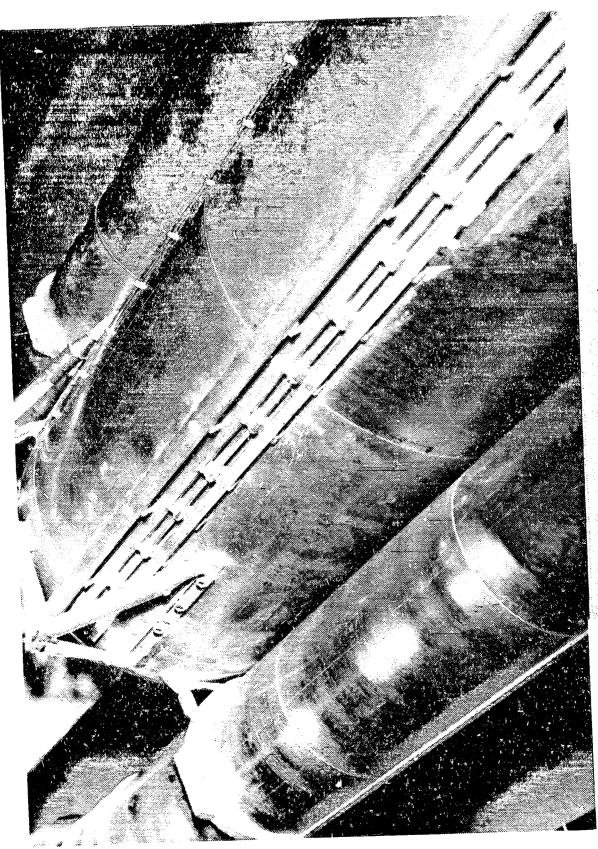


Figure óm. ET Feedline - Blue Streak Area

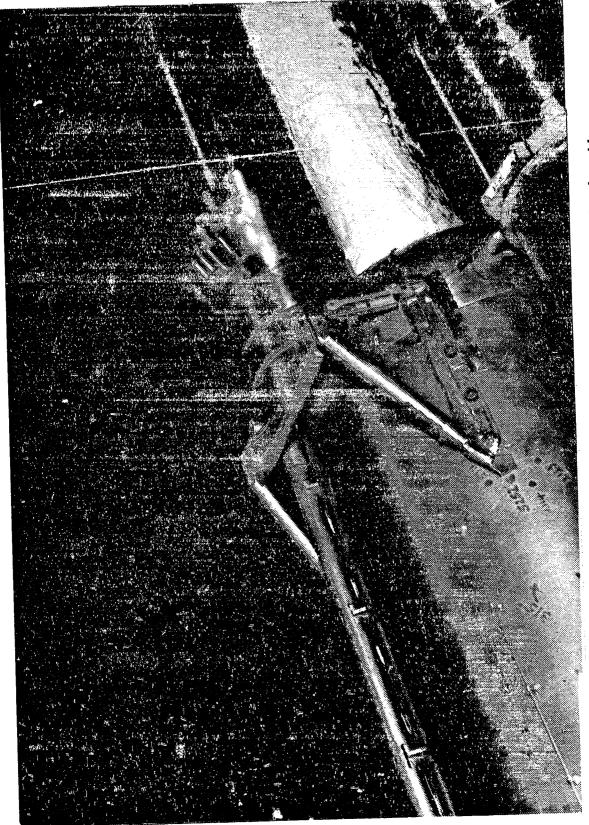


Figure 6n. ET Aft Orb./ET Attach Structure Instrumentation Location

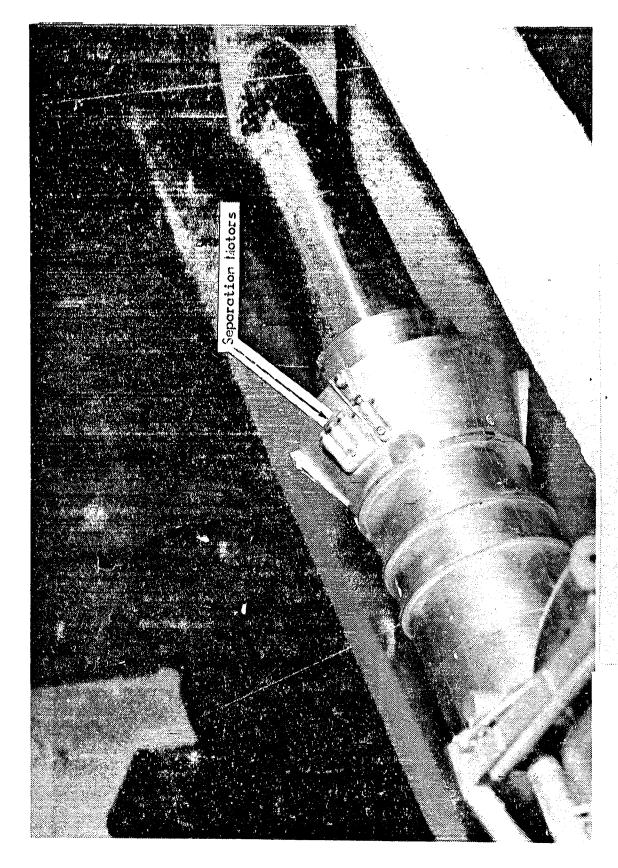


Figure 60. R/H SRB Aft Separation Motor Detail



Figure 5p. ET Nose and Nose Spike (Schmidt-Boelter Gage)

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DATA FIGURES

(Sample Heating Data)

Tabulations of plotted data figures are published in Table VI of this report.

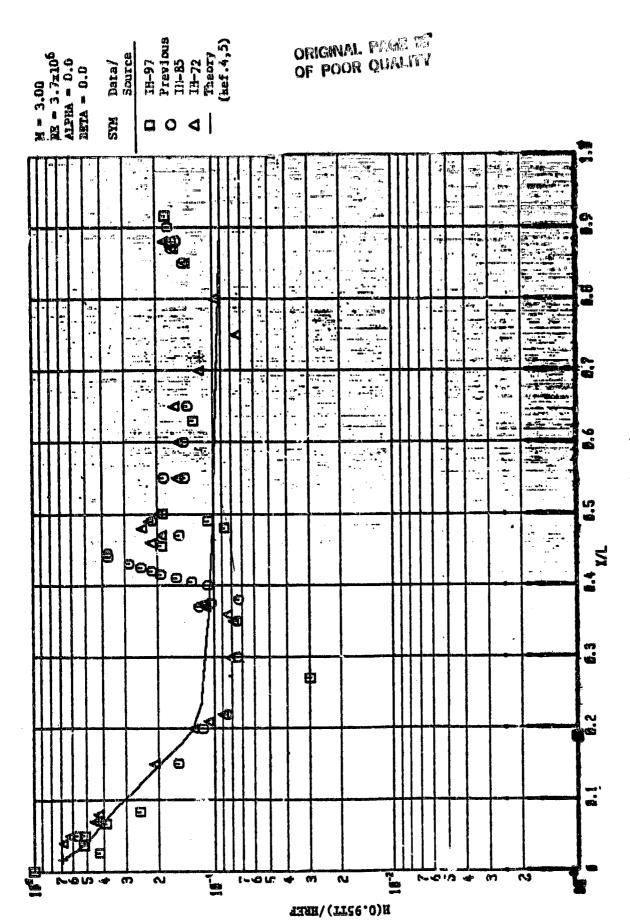
OF POOR QUALITY B 8 REFERENCE RUN HUN X - 460 ģ CORRELATION WITH ADJACENT T/C'S, BASED ON & (TTOTAL COMPENSATION FACTOR FOR P, T ġ Rockwell International x COMPENSATION FACTOR R 8 Figure 7a. (F/T) ä RUN NUMBER HI/H ref HIMPE COMPENSATION FACTOR RATIO ONE = Ŕ Ę. 5 NOTING OF THE OWNER OF THE OWNER OWN DITAR ONE

RECOVERY OF 11197 HEATING DATA FROM MALFUNCTIONING S-B GAGES

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Pigure 7 C. Comparison of External Tank Heating Data from IN-97, IN-85, IN-72 and Theory at M = 3.00

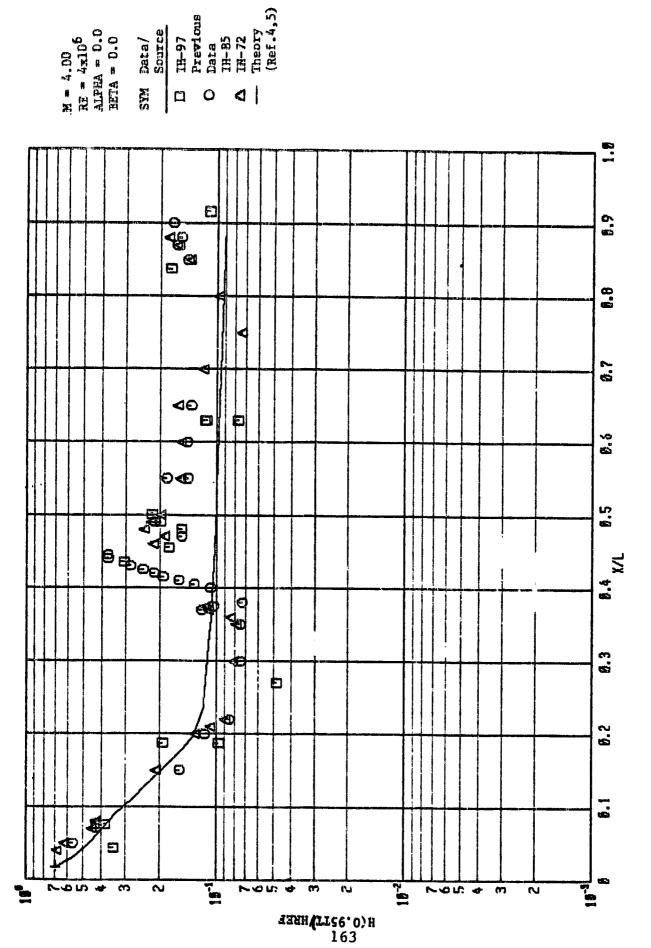


Figure 7d. Comparison of External Tank Heating Data from IH-97, IH-72 and Theory at M = 4.00

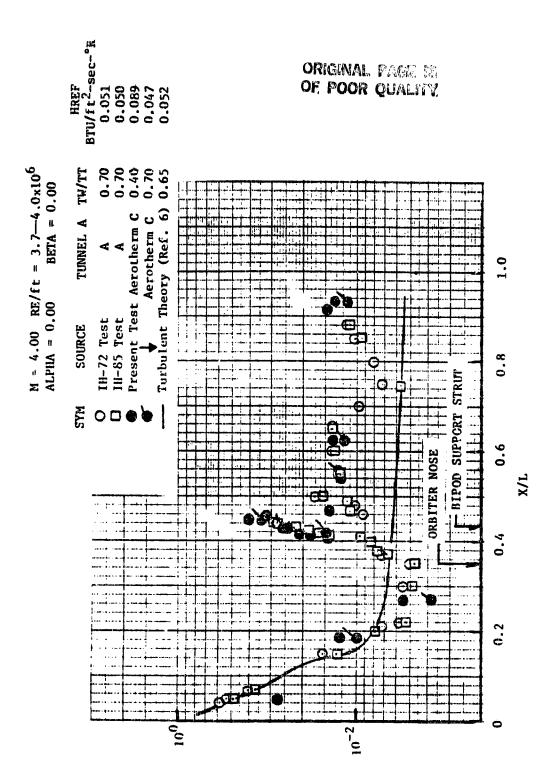


Figure 7e. Comparison of External Tank Heating Data from Present Test, IH-85, IH-72 and Theory at M

H(0.95TT)/HREF